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Are Southern Laws Unfavorable to Capital?

Are the laws of the South unfavorable to capital? The MANUFACTURERS' RECORD has received many complaints saying that they are. For years it has severely criticised legislation that has tended to restrict the investment of money in the South, and it rejoices that a complete study of this whole subject is to be made. Mr. Hugh R. Garden, the president of the Southern Exchange Association of New York, has issued the following:

The bureau of legislation of the Southern Exchange Association is prepared to receive communications from all parties interested who have suggestions to make touching the laws of Southern States which appear to effect, injuriously or otherwise, the investment of capital and the influx of settlers to the South.

Communications should be addressed to the Hon. Wm. G. Verger, chairman of the bureau of legislation, Greenville, Miss., or in care of the Southern Exchange Association, No. 23 Park Row, New York city.

Every business man who has any complaint to make regarding Southern legislation on matters involving the investment of capital, the collection of debts, etc., is invited to correspond with the association. After the whole matter has been thoroughly investigated a report will be made, and if any laws inimical to the best interests of any State are found, the facts will be set forth plainly, with a view to securing a correction of them. If the Southern Exchange Association should do nothing else than to take up this matter it would prove a great blessing to the South, but this is only the beginning of its work. Every business man in the South ought to become identified with it.

THE appointment of Mr. Thomas P. Grasty as chairman of the committee on advertising of the Southern Exchange Association of New York was a most appropriate one, in view of Mr. Grasty's familiarity with Southern conditions and his devotion to Southern interests, and his reputation as a writer on Southern affairs.

The South's Supremacy.

In a strong editorial commendation of an article in the June issue of the *Southern States* magazine by the editor of the MANUFACTURERS' RECORD, the Charleston News and Courier makes one criticism which it would hardly have published if it had carefully considered the matter. In the article referred to the statement is made: "In iron, cotton and lumber manufacture it is not a question of whether the South can hold its own against other sections, but whether other sections can compete with the South." Referring to this the News and Courier says: "We think Mr. Edmonds is somewhat extravagant in what he says in regard to the position of the South in the matter of the manufacture of iron, cotton and lumber, as we are still in the beginning of the manufacture of all these products. What he says in the rest of his article is exceedingly interesting and instructive, however, and is beyond criticism, we believe."

It was not stated that the South leads in the value of productions in iron, lumber and cotton, but that it had already demonstrated by the success of these industries its superiority for their manufacture. So completely has this been done that every candid investigator must admit that the statement made is fully within bounds. The South practically monopolizes the manufacture of coarse cotton goods. The South is pushing now into finer qualities with equal success. Many of the largest cotton-mill companies of New England freely admit, as the MANUFACTURERS' RECORD has repeatedly published, that it is impossible for them to hold their trade on coarse goods without building new mills in the South for that purpose. About half a dozen of the largest mill concerns in New England are preparing to build mills of about 50,000 spindles capacity each in the South just as soon as the financial situation improves sufficiently to justify them in putting new stock on the market. The South has so fully demonstrated its advantages for cotton manufacture, and South Carolina especially has taken such a lead in this that the News and Courier certainly cannot question the correctness of the statement made so far as cotton is concerned. The growth of Southern cotton manufacturing is illustrated in the simple statement that in 1886 the South consumed only one-fourth as much cotton as New England, whereas at the present time it is consuming about one-half as much. In 1880 the South had \$21,900,000 invested in cotton manufacturing and 667,000 spindles; in 1890 it had \$61,000,000 capital and 1,712,000 spindles; in 1894 it has \$97,000,000 capital and 2,770,000 spindles.

As regards iron-making, the South's supremacy in the production of iron at a low cost is an accepted fact that no one

questions. Birmingham is to-day making iron at from \$6.00 to \$6.50 a ton, or at a lower price than any other point in the United States, if not any other point in the world.

The manufacture of lumber depends, of course, simply upon the utilization of the supply. As the South, according to official figures, has more than *one-half* of all the standing timber in the United States, and as the utilization of our forest resources is going on with amazing rapidity, there is no question as to what section will lead in lumber manufacture.

The Southern Immigration Question.

The Financial Index, of Atlanta, says: The Index views the various bureaus of immigration now being organized in the South with considerable distrust. While heartily in favor of the encouragement of settlers from the East, North and Canada of English-speaking people of means and intelligence who desire to escape the rigorous climate of those sections, we are unalterably opposed to immigration of a non-assimilative element.

We have no room for the horde of anarchistic, law-defying, revolution-breeding off scourings of Europe that the North and West are so largely composed of.

European immigration to the South is neither wanted nor needed, and any effort to induce such an influx should be condemned in no unmeasured terms.

The Index is partly correct and partly in error. Probably no one interested in the advancement of the South wants to see that section overrun by the worst class of foreign immigrants, from whom the anarchists and socialists of the West are drawn, but there is room in the South for a great many thousands of the better class of foreigners. So far as the MANUFACTURERS' RECORD knows, the intention of most of the immigration companies that have been organized is to seek to attract settlers from the North and West. The MANUFACTURERS' RECORD heartily commends this intention and rejoices at the organization of every company or association having for its purpose the bringing of men or money into the South. But the South needs and can assimilate a very large number of the better class of farmers from Germany, Great Britain, Sweden and Norway and other European countries. There are probably no better settlers in the West than the Scandinavians. Law-abiding, hard-working, honest and intelligent, they make a country in which they settle blossom like the rose. It is to the untiring work of the 2,000,000 Scandinavians settled in the West that much of the prosperity of that region is due. Several years ago when a harvest festival was held in Minneapolis and the statistics were gathered to show the grain production of the country tributary to that thriving city, it was found that of the 175,000,000 bushels of wheat raised in that territory 125,000,000 bushels had been raised by Scandinavians. The Scandinavians have for a thousand years or more given the closest attention to agricultural pursuits; they are neither anarchists nor socialists; they are lovers of the soil, and when once they have secured a little home surrounded by twenty or forty acres of land they till it with untiring energy. The German farmer makes equally as good a citizen. There is room in the South for such people as these, and their incoming would bless this whole section. Bismarck is credited with once having stated that no nation could ever become permanently great without an intermingling or an intermixture of blood.

THE New Orleans Picayune says:

If the United States shall neglect the urgent duty which devolves on this country to build the Nicaragua Canal, the prize will be snatched up by some other power. That is all there is of it. The Congress just now in session should never conclude its sittings until the Nicaragua Canal shall be provided for.

The truth of these statements is so apparent that it is difficult to understand the reasons for the delay on the part of Congress. This country must control the canal, and the canal must be built.

With the best foundation in the world—the purest American Anglo-Saxon blood—the South needs the stimulus that comes from mingling with other people; it needs the thrifty settler who on twenty acres of ground will produce by careful cultivation more than is now produced on the average on 100 acres; it needs men who, like the Germans and Scandinavians, assimilate with the people of this country and become the best citizens. No one would be more bitterly opposed to see the South flooded with the horde of what the Index calls "revolution-breeding off-scourings of Europe," but it does insist that the South can well afford to turn its attention to securing settlers from the well-to-do classes of Europe.

Ready for Business.

The MANUFACTURERS' RECORD has received a large number of letters from all parts of the South asking for information in regard to the work of the Southern Exchange Association of New York and how those desiring to become identified with it can do so.

The Southern Exchange Association is now ready to begin the work for which it was organized—the advancement of the material interests of the South. It invites the co-operation of all real-estate owners and agents, all immigration and land companies and every business man, whether living in the North or in the South, interested in the advancement of the prosperity of the South. Landowners, agents and immigration companies will find it profitable to put themselves in communication with the association and register their lands, in order that Northern or Western people interested in investigating Southern opportunities may be able to do so through it. It is not intended as a money-making institution, and no commissions are charged for any sales that might be effected by reason of the information secured on the part of the buyer or the seller through it. There is a nominal fee for registration and membership, but beyond this the land-owner or agent incurs no obligation. Immigration companies organized in any part of the South, seeking to attract settlers or capital from other sections, will find it profitable to make known through the association the opportunities they offer. It should be distinctly understood that this association offers exactly the same advantages to every land-owner, real-estate agent or immigration company. It has been organized in the interest of the whole South, and not of any particular part of it. It will co-operate with every railroad, every incorporated company and every individual seeking to advance this section by attracting capital and settlers on the same basis, with partiality to none. The character of the men responsible for its management ought to be a sufficient guarantee to the public that its whole work will be on the broadest possible plane for the general advancement of the whole South.

THE News and Courier and other Southern papers are denouncing a tariff on coal and iron. Suppose rice should be put on the free list, what would be the course of the News and Courier? Is it willing to ask for protection on Carolina's rice and deny it to Virginia and Alabama's coal and iron? Let us be

honest. Let us have an equal measure of protection to all, or else absolutely free trade on everything.

The Resources and Development of the South.

A notable contribution to recent literature on the South is the collection of well-authenticated and forceful truths prepared by Hon. Hoke Smith, Secretary of the United States Interior Department, and published in the August number of the North American Review. Southern conditions and possibilities offer an attractive and fruitful theme for investigation and study, and, inspired by patriotism, the distinguished member of President Cleveland's cabinet has gleaned a convincing array of facts that will prove instructive reading.

Aside from the great merit of the article in question, the distinction of the writer adds new weight to every statement and secures the attention and respect of a world-wide audience. With such a prestige and its especial timeliness, when authoritative information relative to the South is wanted in both hemispheres, its appearance will exert a wide influence. Mr. Smith's treatise, "The Resources and Development of the South," photographs the past and present conditions and future possibilities. He aptly declares that the South's future is a question which interests all portions of the Union, and that careful investigation will cause the answer to be most encouraging to those now already dwelling in that section, and most advantageous to people outside of it. Mr. Smith pictures the South of 1860 thus:

At that time the value of the farms of the whole country was \$6,000,638,000, of which the farms of the South were valued at \$2,300,000,000, they having increased from 1850 to 1860 \$1,300,000,000. The agricultural product of the South did not consist of cotton alone, but was of infinite variety. The following table gives a few items from the census of 1860:

Yield in the South—Corn, 358,153,000 bushels; wheat, 44,800,000 bushels; value of animals slaughtered, \$84,47,000. In the remainder of the country these items were—Corn, 472,297,000 bushels; wheat, 125,200,000 bushels; value of animals slaughtered, \$128,424,000. The total assessed value of property in the United States in 1860 was \$12,000,000,000. Of this the South had \$5,200,000,000, nearly one-half. At this time also 30 per cent. of the entire banking capital of the country was in the South.
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Tracing the appalling destruction of personal property during the war and the effect of misrule and changed conditions after the war, Mr. Smith says:

To appreciate the terrible loss that the South had endured during these twenty years (from 1860 to 1880) it is necessary to remember that the total wealth of the section had depreciated from 1860 to 1880 by \$2,400,000,000, the depreciation having continued during practically the entire time, \$300,000,000 of the amount being properly chargeable to the period from 1870 to 1880.

After this dark exhibit the writer queries, "But what has been accomplished since 1880?" Answering, he says:

Referring to all those States classified as Southern in the figures before presented, the census reports of 1890 show an increase in assessed value during the preceding ten years of \$1,815,000,000, while the increase in true value was \$3,893,000,000. In ten years the value of the products of the South increased from \$1,200,000,000 to \$2,000,000,000.

Some forcible and suggestive points on the South are given in the article, and we excerpt the following:

Perhaps one of the most noticeable indications of progress is the fact that in ten years the public schools of the South increased expenditures 96.53 per cent. All the people of a section must be free and all educated to insure progress. The South is determined that illiteracy in its section shall cease; that every child shall receive a fair education. The percentages taken today would be even more striking, but the exact figures cannot be obtained. The one State of Georgia has

in the last three years increased her appropriation for public schools more than 100 per cent.

The total acreage in the Southern States named is 500,000,000; the amount in cultivation is 100,000,000. Three-fourths of the uncultivated land is suited for farm purposes. The gross product from agriculture in the South for 1890 was 24.1 per cent. on the value of investment. In other States of the Union it was 13.1 per cent. What an opportunity this section offers to home-seekers! They will find land cheap and the people ready to receive them with hospitality. Political affiliations no longer affect social relations in the South.

The land is most varied in its uses. The lofty elevation of the Piedmont region furnishes a climate similar to New England, while the low lands of the gulf States are suited to semi-tropical products. Between these two can be found every character of soil, and the farmer can choose the locality and raise what he pleases. Locations can be found in which wheat, corn, cotton and fruit can be successfully cultivated in the same field. The truck farms furnish great results, and from Norfolk alone is shipped annually over \$6,000,000 worth of vegetables and fruits. While the South produces over 60 per cent. of the world's cotton, its grain crops are now nearly equal to its cotton crops.

The remarkable timber, coal and iron-ore resources of the South are illustrated and the great expansion in the growth and manufacture of cotton is shown, making the article a complete and instructive resume of the South.

A Series of Expositions.

Tennessee is to mark the close of a glorious century of progress with a grand exposition at Nashville in 1896. The whole State is aroused and enthused with the undertaking, and there will be presented an array of attractions and resources from Tennessee alone that will astound and interest the visitor. The whole South will, however, participate, as the occasion, while celebrating the one hundredth anniversary of the admission of Tennessee into the sisterhood of States, also emphasizes the achievements in all fields of progress of the Southland. Than the next few years there can be no riper time for faithfully, continuously and intelligently setting forth the distinguishing characteristics of the physical South. Endowed by nature with a superior equipment, permitting it to out-distance any other like area in the world's race of progress, the necessity is urgent for the fullest exposition of the contents of its natural storehouse. Disturbances that have paralyzed the finances of the country must disappear before the leveling process of time. The clouds ahead show signs of breaking and give promise of the dawn of a new cycle in the world's history, whose tremendous material advancement will mark as the industrial age. Nature has prepared the South to lead in this grand evolution. But a great labor is imposed upon the people of that section. To discount the future by so shaping the avenues of preference that a golden share of progress will be poured into the South is their duty. This is only to be done by a comprehensive educational campaign. Many agencies are already at work presenting, by various praiseworthy methods, the special resources and advantages of the South. The work is, however, so vast as to offer employment for every intelligent and patriotic Southerner, for every corporation, for every town, city, county, State and institution. All can help, and where one's influence has no weight, another's may be potential. So there can be no harm from a multiplicity of expositions. Atlanta in 1895 and Nashville in 1896, both crowned by the great international exposition of Baltimore in

1897, will exert a beneficial influence. Atlanta, with its wonderful aggregation of exhibits, will, with its exposition of next year, meet a universal demand for a fuller representation of Southern industries and awaken interest in new quarters in the South; Nashville will stimulate and help to broaden this interest in 1896, and Baltimore will cap the climax and supply the appetite the following year with an exposition of large scope. The question that now confronts the Southern people is the securing of a complete representation from all phases of Southern development and industry. These expositions must be complete. They are Southern enterprises, started and managed by Southern men, and the outside world will accept them as typifying the South's resources and attractions. There must not and cannot be any disappointment. Southern men and institutions are equal to the task, which is indeed a labor of love, and it is safe to predict that there will be no laggards when the flourish of trumpets open the first and the succeeding ones of these expositions, which give promise of being epoch makers.

The Nicaragua Canal Again.

Mr. Courtenay DeKalb in this issue of the MANUFACTURERS' RECORD discusses the Nicaragua-canal question in a way that should command the attention of the entire South. The careful study given to this question for many years by Mr. De Kalb, who as an engineer has spent some years in Central America and has given close study to all phases of this canal question from the point of view of all treaties bearing on it, as well as that of the estimated cost of its construction, emphasizes the value of what he says. In connection with his article it is worth while studying an editorial, republished from the New York Times, calling attention to the fact that should the money for this canal be furnished by foreign capitalists the control would unquestionably eventually fall into foreign hands. If, through the supineness of members of Congress, the opportunity now presented to the people of this country of building this canal and controlling it forever should by any means be permitted to pass from us, we will have suffered a loss which can never be retrieved. It is difficult to understand the indifference with which a matter of such vital interest is regarded by Congress. The construction of this canal has been advocated by democrats and republicans; it has been persistently urged by every business association of importance in the United States; probably nine-tenths of the newspapers of the country have for years favored it, but because it is, as Mr. De Kalb says, everybody's business, it is nobody's business. With such universal endorsement as this we are in danger of seeing its construction delayed, when the building of it would annually add to the wealth of the South more than the entire cost of the canal. From the day that its construction was absolutely assured every acre of land from Maryland to Texas would be intrinsically increased in value, and, with the universal disposition to discount the future, by the time the canal was ready for business there would be such a degree of development and activity throughout the South and such an inflow

of outside money as would create a period of marvelous prosperity and advancement. The war between China and Japan and the complications that may grow out of it show as nothing else could do the need of the canal and of its control by this country. The Orient is getting ready to become a very important factor in the world's civilization and the world's commerce, and we must be prepared to meet the situation.

A Good Work Well Done.

In the inauguration of great public enterprises the first and most essential disideratum is the active co-operation of the press of the country. This goes without saying. But after that co-operation has been secured it rarely happens that the men who, by reason of enjoying the confidence of editors and publishers, were directly instrumental in securing it, are given due credit by the beneficiaries of their endeavors. When an exception to this rule does present itself it is worthy of comment and commendation. In the matter of the Cotton States and International Exposition to be held at Atlanta, a work has just been done by Col. I. W. Avery which has resulted in the endorsement of the enterprise by hundreds of newspapers and by commercial organizations in thirty-six of the leading cities of the South. The outcome of all this endorsement will go a long way toward insuring the success of the exposition. Were the space which the newspapers have devoted to the undertaking measured up and charged for, the bill would run high into the hundreds of thousands. Therefore, it is extremely gratifying to all who believe in giving honor and credit where honor and credit are due, to know that the man who has done all this is appreciated by the people of Atlanta and by the management of the exposition. Says the *Atlanta Journal*:

The employment of Col. I. W. Avery as special commissioner of the exposition was a happy stroke. He understands his business thoroughly, and does it in a way that elicits the hearty approval of the exposition directory.

The MANUFACTURERS' RECORD recognizes the value of Colonel Avery's work not only from the standpoint of benefit to the exposition, but of benefit to the whole South, for the educational work that Colonel Avery has done broadened the views of thousands of business men as to the South and its trade relations with Central and South America.

The Outlook for Business.

The Iron Age, reviewing the general business situation, takes a very hopeful view as to the outlook. "The worst," it says, "is over and factories of every kind are resuming operations all over the country. The Western banks report a better demand for money from country clients; the currents of trade are beginning to flow again, and the movement thus begun may reasonably be expected to gather strength until the producers of raw products are also affected. While it will probably take some little time for general recuperation from the severe depression that has visited us, and it is too much to hope that everybody can institute reforms that will be productive of immediate benefit, yet there is no doubt that many an individual might be able to accomplish much more than he is now doing. This is a good time to clean house—to get the rubbish out of

the corners, freshen everything from cellar to garret and let the sunshine of enterprise penetrate the windows which have so long been neglected. The machinery builders are now so slack of work that they can never find a better time for improving their machinery—use some of the capital now lying idle in putting in a new or larger engine, better boilers, machines that are up to the times, and the good effect of such a movement will soon be apparent."

THE fight that is being made in Congress against oleomargarine is a fight against Southern cottonseed oil, and to that extent a fight against the cotton-raising interests of the South, as well as against the oil mills. Elsewhere in this number are given some facts bearing upon this matter that deserve the attention of all interested in the South's cotton-oil industry. There is evidently a strong fight ahead, and the cotton-oil people of the South should fully understand the danger that threatens their interests.

Liberal But Judicious Advertising Needed.

It has been suggested that the bitter denunciations that are now appearing in many English and Northern papers against the South are being inspired by people interested in preventing the southward moment of men and money, which promises to become one of the most conspicuous features of the closing decade of the nineteenth century. But the MANUFACTURERS' RECORD does not believe that this is wholly true. No sooner, however, does the fact become apparent that the South is the most inviting field in the world for the investment of capital and for the settling of people looking for new homes than hostility is aroused on the part of many who realize the fact that their great investments in the West must seriously suffer unless the steady tide of immigration can be kept up, and they may seek to retard the southward movement, but all of these attacks can hardly be attributed to such motives. A few narrow-minded people imagine that they see in the rising tide of prosperity in the South a menace to their own investments in the West. Self-interest prompts them to seek to counteract by misrepresentation all the good work that is being done in behalf of the advancement of the Southern States, but the world cannot be permanently influenced by such prejudices. The South has an opportunity to start upon a period of prosperity and development unequalled in the history of American progress. This growth will, however, be retarded unless the most vigorous effort on the part of Southern people is put forth to take advantage of the conditions now prevailing.

It is extremely important that, while the conditions are favorable, the South should make the most persistent and vigorous efforts that have ever been made to attract attention to its advantages and to make known to the world its desirability as a place of residence. It will not do to sit down and say that prosperity must come anyway. If we hope to reap the reward we must do the work necessary thereto. It was never more incumbent upon the South to advertise, and advertise liberally. Every business man, every property-owner and

every man interested in the future prosperity of the South should take an active part in every solid movement that can be made a means of presenting to the world the attractions of the South, but in doing this it is equally as important to avoid wasting money upon "fake" advertising schemes. The views of a New York banker on these points, as given elsewhere in this issue, are worthy of careful study.

THE WEEK IN THE SOUTH.

Condition of Business and the Latest Features of Southern Progress Summarized.

The railroad situation in the South shows some improvement, and the reorganization and consolidation of many lines into one strong combination, backed by the strongest financial interests in the country, is generally regarded as likely to result in great good to the whole South. No new lines of any great extent are being undertaken, but a number of short lines as branch roads or connecting links are being pushed. Some of them will open up very important mineral and timber regions. The tendency of immigration to the South from other sections is becoming more pronounced, and one railroad alone is receiving an average of 250 letters a day from Northern and Western people asking for information about the South, while letters to the MANUFACTURERS' RECORD and *Southern States* magazine show that even as far west as California many people are getting ready to move to the South. Mr. J. E. Lockwood, of the Kansas City, Fort Scott & Memphis Railroad, writing from Kansas City to the *Southern States* magazine, says "indications of a large emigration from the West to the South and Southeast are becoming plainer every day." Among the leading industrial enterprises reported for the week were a \$300,000 lumber plant and creamery in Tennessee; a \$50,000 cottonseed-oil company and a drug company in Mississippi; a \$30,000 coal-mining company, \$50,000 telephone company, \$5000 gin company, electric-light plant and water works in Texas; a large tannery and gold-mine company in Alabama; a \$50,000 compress company and electric-light plant in Arkansas; a shoe factory, cannery, lumber plant, etc., in Florida; a \$130,000 manufacturing company and a \$100,000 enlargement of iron works in Baltimore; two roller flour mills in North Carolina; a \$20,000 land company, publishing company, etc., in South Carolina; a large woodworking plant, tobacco works, implement works, \$25,000 ink company, \$25,000 manufacturing and supply company and \$10,000 packing-box company in Virginia; tinplate works, steam laundry, etc., in West Virginia. Some large new buildings were announced as to be built, including a \$50,000 cathedral in Kentucky, a \$75,000 hotel in West Virginia, a large cathedral in Louisiana and a depot in Texas. Contracts were let for a large State penitentiary in Baltimore.

HON. W. A. SQUIRES, mayor of Henrietta, Texas, in a letter to the editor of the MANUFACTURERS' RECORD, says: "Allow me, as mayor of our thriving and growing little city and president of our Board of Trade, to congratulate you on the magnificent address you delivered before the Southern Exchange Association. Every word is true, and more than true."

THE steamship line between Pensacola, Fla., and Havana, established by the Louisville & Nashville Railroad, is taxed to accommodate the large amount of freight offered. Several times of late the demand for room has been greater than the space available, and an increase in facilities is expected in the near future.

ONE GREAT NEED.

The Views of a New York Banker.

A Contrast Between the South and the West.

In an interview with a leading New York banker a few days ago a representative of the MANUFACTURERS' RECORD was discussing the bright prospects of the South. "I admit," said the New Yorker, "all that you say regarding the South's advantages and resources. I represent some millions of dollars invested in that section, and I have studied fully its wonderful possibilities, but I have also studied the West, and have seen a material difference between the people of the two sections. The West, with comparatively few advantages, has had a very marvelous progress by reason of the unbounded liberality and energy of its people. The West believes in spending money to make the world know what opportunities it offers. It was persistent advertising, costing millions of dollars, that made the West. No other section of this country ever spent money so freely as the West for this purpose, and the reward is seen in a magnificent growth in a country of infinitely less material advantages than the South. Before the South will have its full measure of growth its people must be more liberal in spending money for advertising. It is utter folly for them to expect that others are going to look for opportunities for investment or are going to spend money to advance the South unless they see the South spending money in its own behalf. If your Southern cities, Southern towns, Southern real-estate owners and agents and your Southern railroads will spend money, and spend it freely, they will be met with a spirit of liberality on the part of Northern people interested in the South. When I say that the South is almost niggardly in its expenditure of money for advertising, I can prove it simply by referring to your own paper, the MANUFACTURERS' RECORD. For some ten or twelve years the MANUFACTURERS' RECORD has done for the South a work unequalled by any other paper for any section. No other paper ever attempted to do for any section what the MANUFACTURERS' RECORD has done for the South, and as I examine the MANUFACTURERS' RECORD from week to week I find that comparatively few Southern towns or Southern cities are spending much money in advertising in it. Carrying my investigation still farther, I find that not only do they not advertise in the MANUFACTURERS' RECORD, but they do not advertise in any other papers or magazines, and even the local papers in the South receive less local support than the papers of any other section. When Southern business men wake up to the importance of spending money for advertising; when they give the most liberal encouragement to their local papers, and then freely and on the most liberal scale advertise through such papers as the MANUFACTURERS' RECORD, they will begin to see that there is a future for the South greater than anyone ever yet dared to predict. But the one great thing that you need to hammer into Southern people is the necessity of advertising, and of spending their own money for it."

The New York banker who made these remarks is a man that has carefully studied the West and the South. He represents investments reaching millions of dollars in both sections, and he thoroughly appreciates the wonderful results that followed the persistent, untiring energy of Western towns and cities in the past in their advertising efforts. What he says about the necessity for Southern people advertising is undoubtedly true. Until the world can pick up the MANUFACTURERS' RECORD or local Southern papers and find that South-

ern towns and Southern cities are liberally advertising their attractions and advantages, the world will be disinclined to believe that there is any energy or enterprise in this section.

Why the South Needs the Nicaragua Canal.

By Courtney De Kalb.

[For MANUFACTURERS' RECORD.]

It is an old saying that "what is everybody's business is nobody's business." This ancient adage finds renewed vindication in the treatment which the great question of a trans-isthmian canal through Nicaragua is receiving by our people. Its construction under American auspices is a matter which affects most seriously every man, woman and child in the United States, but, being in the interests of all instead of those of some small faction, destined as it is to swell the incomes of millions of men from the poorest to the richest, without robbing the purses of any, instead of holding out opportunities of large benefit to greedy trusts at the expense of the masses, we find in consequence that no organized effort is being made to force Congress to take that favorable action without which this canal will be lost to us forever. It is par excellence an affair of the whole people for the common good, and, being such, it is allowed to drift like a ship without a rudder on the sea of chance. This is not a matter for our people to contemplate with a complacent shrug of the shoulders. Rather should it fill every citizen with a strong sense of personal responsibility. The responsibility is not one to be assumed collectively. It rests upon each individual in every city and town and hamlet in the land to further this good work by pressing its importance upon his neighbors, by writing to his congressmen, to the senators from his State, to the boards of trade in the nearest cities, urging that prompt action be taken to preserve this canal as an American enterprise. Each of us must cease to think of it merely as everybody's business, but must make it our business, because, for example, it will create a demand for more iron in the regions whose growth will be stimulated by cheaper freights, and will consequently enable me to sell more tons of iron ore, or because a growing and prosperous population will consume more cotton and give me an extra half-cent a pound on all that I can raise, or because the growing centres of manufacturing and commerce will demand of me larger shipments of fruit, of vegetables, of cereals at more remunerative prices.

Reduced to its simplest terms we have the plain proposition that the Nicaragua Canal will reduce the rates of freight between the eastern and western portions of the United States. This reduction will not be simply in goods carried by sea, but just as has happened in the belt of attraction to the great lakes, and in all parts of the world where water competition exists, the rates of transportation on land must perform approximate the rates by water. Thus we may anticipate a reduction of freight charges by rail of fully 25 per cent. throughout the greater portion of the United States west of the Mississippi when the Nicaragua Canal is opened, and the total reduction between the East and the West, averaging the rates by sea and land, will certainly be no less than 50 per cent. The natural result of such a reduction will be that throughout hundreds of thousands of square miles of territory it will be possible to enormously increase the agricultural and mineral production, where today the rates of transportation impede or prevent the growth of industry. This means that vast areas now deserted or thinly peopled will offer inducements to a large population, which will swiftly rush in and fill them with the hum of civilization. But such a growth of population implies a large con-

sumption of manufactured goods. These must come from the older centres, and hence must follow activity in every branch of commerce; the producer of raw materials busy supplying the needs of the manufacturer, the merchant busy filling orders and the agriculturalist busy feeding an army of workers who have money to buy freely what he sends to market.

Such has been the effect upon a portion of the United States through the improvement to navigation on the great lake system of the Northwest. No one doubts that the phenomenal growth of the region tributary to the water-route from Duluth through to New York has been in a large part due to the fact that such a through route by water has been opened, and no one can gainsay the fact that it is precisely in this belt of country where, by reason of water competition, the railroad freight rates are the lowest in the United States, that the railroads themselves are most prosperous. The conclusion is inevitable that similar results would follow the opening of the Nicaragua Canal, except that the benefits would be larger in proportion, as the area affected would be greater.

No one today begrudges the expenditures made directly out of the United States Treasury for the improvement of these Northern water routes. The good that has accrued to the North and West in consequence has reacted beneficially upon the whole country. The South meantime has allowed its own waterways, capable of being improved so as to give it a system ramifying in many directions from the gulf far into the interior, to be neglected. These it must have ultimately, and the time when this tremendous commercial power shall be put into the hands of the Southern people will be hastened by the building of the Nicaragua Canal. The activity in shipping enterprises in the gulf ports, which has been growing so rapidly in recent years, will assume immensely larger proportions as soon as the Pacific is rendered accessible. The natural geographical advantage of the gulf States will then stimulate a foreign commerce of large proportions, and this will render cheaper outlets to the gulf by canals and improved rivers imperative. Such conditions will necessarily promote a development of the South corresponding to that which has taken place in the zone of attraction to the great lake system. On this account the Nicaragua Canal offers as large a promise of prosperity to the South as it does to the West. It will prevent that which seems inevitable without it, namely, a limit, far below the natural potentiality of the South, which the competition of regions favored with lower freight rates will set to her development.

Coming now to a consideration of the means whereby this canal can be retained under American control, it is plain that there is only one which is practicable. Direct government ownership, which has been frequently suggested, would be in contravention both of existing treaties and of the pledges which our Department of State has many times reiterated in its diplomatic correspondence upon the question of a trans-isthmian ship canal. It would involve us in dangerous entanglements with foreign powers, who would regard our assertion of political supremacy over the canal as jeopardizing the right of their shipping to the unrestricted use of what will be virtually an international highway of commerce.

Ownership by a private corporation, unsupported by government credit, is feasible theoretically, but practically it has been found impossible to secure in this country the needed funds under such an arrangement. This reduces us, then, to ownership by a private corporation guaranteed by the United States. It has been proposed that the government should guarantee the bonds of the Maritime Canal

Co. of Nicaragua, a corporation chartered by special act of Congress, which owns the concessions for the canal. The government would be secured against loss or misappropriation of funds by acquiring, in consideration of this guarantee, at least 70 per cent. of the company's stock, and would in addition appoint a considerable majority of the board of directors. Thus the canal would be owned by a private corporation which was practically controlled by the government. The advantage of this plan consists in the fact that the powers of this corporation and the relation of the completed canal to foreign shipping are carefully prescribed by the concessions, so that the whole world would know what rights and privileges shipping of every country would enjoy, and thus all cause for jealousy or suspicion of our intentions would be removed.

There is a financial advantage in it also. Instead of involving a disbursement from the national treasury, it will create securities bearing a low rate of interest, which, because of their safety and because of the length of time (perhaps as much as forty years) which will elapse before their maturity, will be eagerly sought at par or at a premium. Moreover, these bonds, instead of being issued all at once, will be put out as the work of construction progresses, so that the interest account will gradually increase to its maximum, which will be reached upon the completion of the canal. Thus the government will have to pay the interest on a gradually-increasing debt for a few years during the building of the canal, the largest amount to be paid being somewhat less than \$3,000,000 in the last year of the work. There are today in round numbers 8,000,000 tons of shipping which would use the canal on the first year of its operation. It would necessarily use it because of the large economy which would result therefrom. This tonnage, at a toll of \$2.00 per ton, would yield a gross revenue of \$16,000,000. The toll for passing through the Suez Canal is \$1.80 per ton, and the maximum distance saved by that canal over the route around the Cape of Good Hope is 4480 miles, while the distance saved by the Nicaragua Canal between New York and San Francisco is 8267 miles, and between New Orleans and San Francisco the saving would be 9392 miles. The maintenance and operation of the canal would be exorbitant at \$3,000,000 per annum, thus there would remain a net income of \$13,000,000 a year from the beginning, out of which to reimburse the government for its advances on interest account, to meet the current interest and to provide a sinking fund to take up the bonds at maturity. It is evident that this could be done on existing tonnage, not taking into account the increase certain to result from the advantages to commerce which the canal will offer, and at the same time enable such substantial dividends to be declared as would quickly force canal stock far above par in the open market.

It will be observed that by this plan the commerce of all nations which will use the Nicaragua Canal will be laid under tribute to pay for its construction. In other words, the burden will not fall upon the taxpayer of this year or next, but it will fall directly upon those who will use the waterway itself, and who, in assuming the burden, will pay less than they would have done had the canal not been in existence.

This, of course, is discounting the future, and we may be sure that the people at large will discount the future still farther by imitating development in anticipation of the lower rates for transportation which will be insured as soon as appropriate action by Congress has made the speedy realization of this dream of a Nicaragua Canal a certainty. There is no better time than the present for launching such an undertaking. As is well known that there are large sums of money lying idle in

our banks, there would consequently be no difficulty in finding purchasers for bonds guaranteed by the government. To that extent the country would benefit at once through the drawing of this money into circulation. It may be little, but every little counts. Furthermore, such a promise of future prosperity would help to restore confidence and tend to improve the economic situation in this country.

If Congress fails to act with promptness it will soon be too late to save this enterprise to the American people. The Nicaragua Canal Construction Co., which exists on the basis of a contract with the Maritime Company, has obligations which it must perform unless it would lose the sums it has already spent. It must, in consequence, obtain money abroad if it is not paid off and extinguished by the action of the United States. Once it secures foreign capital it will pass from us forever. Foreigners will not place their investment in Nicaragua under the jurisdiction of the courts of this country. It is to deem them wanting in intelligence to think they would do otherwise when they had gained control than compel the companies operating under these concessions to surrender their American charters and organize abroad. Considering that British capital would most probably control the enterprise if its ownership should go out of American hands, and considering how England has for half a century been scheming to gain political control over the Nicaragua Canal route, and considering further that she has been careful to keep a loop-hole open through her arrangements with reference to the Mosquito coast, whereby she may at some fitting moment establish such control under the guise of a protectorate, we may conclude that Great Britain would secure to herself transcendent advantages in Nicaragua and its interoceanic highway, unless we should restrain her by force of arms.

But all future complications will be avoided by immediate action of Congress, for no foreign power would interfere with our vested rights in Nicaragua, and thus it appears that not only for personal advantage, but as a safeguard against future national peril, it is incumbent upon every citizen to use his utmost endeavors to force the conviction of this high duty upon the Congress now in session.

Financial Control Will Carry Governmental Control.

INTERNATIONAL RAILWAY EQUIPMENT CO.,
NEW YORK, July 27.

Editor Manufacturers' Record:

I have read with deep interest the excellent articles which have appeared in the late issues of your valuable publication upon the Nicaragua Canal. It is a subject that should interest all American citizens, who feel that the prestige and prosperity of the whole country is in a measure connected with its successful completion under American management. Enclosed please find an extract from today's New York Times upon the subject, which should commend itself to the attention of the Congress now in session. If the control of the Nicaragua Canal should pass out of our hands into that of any foreign power, particularly into that of Great Britain, which already controls the Suez Canal, we would surely regret it. Very truly yours,

INTERNATIONAL RAILWAY EQUIPMENT CO.,

TRACY COIT.

The editorial from the New York Times to which reference is made in this letter deserves careful attention. It is as follows:

CAPITAL WILL CARRY CONTROL.

The chairman and another prominent member of the reorganization committee of the Nicaragua Canal Co. have sailed for Europe, and the story is that they have gone to negotiate for capital with which to carry on the construction of the canal to completion. According to the report, a

syndicate of English capitalists has offered to furnish the amount required, which is estimated at \$80,000,000. These reports may be premature, and it is possible that Messrs. Bartlett and Weed have no serious intention of turning their enterprise over to foreign capitalists, but this is likely to be done sooner or later if the company does not get the necessary financial support in this country, and it is a matter that greatly concerns our people and our government.

To be sure, the statement is that there is no intention of turning the enterprise over to a foreign corporation, but only of obtaining for the American company the necessary funds from foreign sources, but there is nothing more certain than that in the long run capital will carry control. The men who put their money into such a work must become substantially the owners of it, and in self-protection they must control its management. Whatever temporary arrangement or agreement may be made, that is sure to be the result in the end. With a work having a relation to international interests, and needing the protection of some strong government, the financial control will ultimately determine the government control. If the Nicaragua Canal is built with English capital, its financial control will pass into the hands of Englishmen, and then, in case of an appeal to government for protection, the government appealed to will be the British government, and it may find it expedient to exercise a very substantial kind of control on its own account. This is a result which we cannot regard with indifference, and yet we shall be in no position to complain or to protest if we allow matters to drift into such a situation. If the men engaged in reorganizing the company and preparing to prosecute the work cannot raise the capital in this country or induce the government to come to their support, the only way to save the undertaking will be to go abroad for funds.

The mere fact, if it is a fact, that foreign capital is offered or can be had is a new assurance that competent judges regard the enterprise as feasible and reasonably sure to be profitable. There is no occasion for argument now to prove its commercial importance, especially to this country, or its importance as an international waterway in which our interest is vastly greater than that of any other nation. It is clear that whatever government control or protection is to be exercised over it, outside of the comparatively feeble state of Nicaragua, should be exercised by the United States. There are strong reasons why it should seek and obtain that control on its own account, and still stronger ones why it should prevent the exercise of any such control by a European government. A very simple plan looking to this end has been proposed through a guarantee by our government of the bonds of the company to the amount necessary for the construction and equipment of the canal, in return for which the government would hold the bulk of the stock and with it the financial control and supervision of the waterway hereafter.

The muddle of the tariff situation and the scandalous entanglement of national legislation in the coils of trusts and "combinations" should not deter Congress from being on the alert with reference to this matter and taking the action necessary to save us from future complications and embarrassments.

THE turpentine operators of Georgia have organized at Savannah for mutual protection, advancement of interests, etc. Charter has been applied for under the name of the Turpentine Operators' Protective Association, with a capital stock of \$10,000. Messrs. D. T. Doughtry, Albert Pridgen, J. W. Callahan and a number of others are named as incorporators.

AN ATTEMPT TO HURT THE SOUTH.

Class Legislation of Dangerous Nature in the Grout Anti-Oleomargarine Bill.

Cottonseed Oil as an Article of Food.

Telegrams to the daily press from Washington state that the House committee on agriculture has reported favorably, at the request of Senator Hill, of New York, who has a similar measure before the Senate committee on interstate commerce, on a measure introduced by Congressman Grout, of Vermont.

When introduced at the beginning of the session, the "Hill bill," No. 1376, received attention from the press of the whole country of a decidedly unfavorable character. The bill is so entirely at variance with constitutional rights and Supreme Court decisions that the consensus of opinion was that the wily senator had fathered the bill, at the request of interested commission butter dealers, under the delusion that it would be a measure popular with farmers, and at the next election be a claim upon their votes.

The Senate interstate commerce committee, however, has not seen fit to report favorably upon the bill, and, therefore, in order to save the vote-catching scheme, Mr. Grout introduced an exact counterpart of Hill's bill in the House.

Many reasons exist why this meretricious measure should be defeated, based upon the loftiest interstate commercial principles, and upon industrial facts of vital value to the whole South.

Mr. J. J. Culbertson, one of the leading cottonseed-oil manufacturers of Texas, who has recently returned from a trip to Europe, in an interview with the MANUFACTURERS' RECORD expressed his great satisfaction at the steady expansion of the foreign market for cottonseed oil by reason of the great favor with which margarine is being received in the best markets of Europe in competition with creamery butter. In Holland, noted for years as the most advanced dairy country in the world, where instruction in dairying is carried on under government aid to the point that it has become a science; where the effect of the grass on the butter is so carefully studied as to secure the best combinations of grasses; where every part of the business, from the milking to the churning, receives the most scrupulous care—even in Holland the manufacture and consumption of oleomargarine is growing with great rapidity. Holland-made margarine, using American cottonseed oil, is pushing its way into the most exclusive butter markets of England. While foreign countries far more advanced than ours in the art and science of dairying, and in their regard for pure food are thus, welcoming well-made margarine, our country is constantly fighting it in the supposed interest of the dairy people. If the enemies of oleomargarine could have their way this most important market for cottonseed oil would be entirely destroyed. Southern cottonseed-oil manufacturers should appreciate the danger that threatens their business. Of course, a few interested butter-dealers, like those of the New York Mercantile Exchange, may object, but the interests of 70,000,000 consumers should be paramount. Mr. Culbertson, in a letter to the MANUFACTURERS' RECORD on "Cottonseed Oil as an Article of Food," writes as follows:

That the oil produced from cottonseed is an edible one admits of no question. That it is free from contamination by disease, like the oils and fats rendered from animals, admits of no argument. As it is the cheapest of oil foods, it is not liable to be rendered injurious by adulteration. When properly refined it is one of the best of cooking fats, taking a much less quantity for such purposes than either pure lard or any compound in which it is a constituent.

Medical men say that food prepared with refined cottonseed oil is more wholesome than that cooked with the ordinary cooking fats. Some of the large refiners in the country are producing cooking oils, the sale of which is growing yearly. Many oil mills in the South are introducing their own brands of cooking oils, putting them up in convenient packages for the domestic use, and which are finding ready and increasing sale.

The chief factors that are at work in removing the prejudices that have heretofore existed against this oil as a food are, first, the intrinsic merit of it as such, and second, the spirit of economy in this age with the mass of people.

Some philosopher has said that "you cannot keep a good thing down." Paradoxically speaking of this oil, you cannot and you can. On its merits you cannot, but as a food you can. The strides of progress that it has made as an article of human food consumption has been in verification that the prejudices are disappearing. That it has entered into competition with the hog, in whole or in part, as a cooking fat is demonstrated when the packers of this country use it as a substitute for pure lard or as an admixture to the extent of over half a million barrels per year. Its greatest future, in the writer's estimation, is its application and eminent fitness in the manufacture of a butter substitute.

Years ago, when the manufacture of what was known as oleomargarine had assumed such proportions as to seriously interfere with the butter trade, there were introduced in the various State legislatures of the country bills to prevent its manufacture. In some States bills were passed compelling manufacturers within their borders to color the compound pink, thus practically suppressing its manufacture. The national government, in the interest of the dairy districts, placed an internal-revenue tax on the manufacture of the article of two cents per pound, and it stands today as open evidence of class legislation.

There was an endeavor to prove that the butter substitute was deleterious to health as human food, but the more its processes of manufacture and the character of the ingredients used were investigated the more it was proven that it was a pure and wholesome substitute for butter. That part of the bills relating to its proper branding to show that the article manufactured was butterine or oleomargarine, to distinguish it from butter, was correct in principle, and readily acceptable by the manufacturer. That it has thus become a recognized article of food is no fault of the various State and national legislators.

At this time in Pennsylvania, in Maryland and in other States the local laws make it a misdemeanor for anyone found selling it—a nice state of affairs when the whole country is eating pure (?) New Orleans molasses and syrups made from the glucose coming from the dairy States that have been holding up their hands in horror at the alleged unhealthfulness of this butter substitute. We would like to ask what becomes of the thousands of barrels of this glucose, and in what forms and disguises it enters the human stomach? How much kaolin or terra alba do our children consume under the guise of pure candy? What quantity of parched dough forms do we grind and use for pure coffee? How much muriatic or sulphuric acid do we swallow as pure cider vinegar? Verily, the wise man sayeth truly when he quoth, "consistency, thou art a jewel."

In no country in the world has the subject of pure food been so fully discussed as in Great Britain, and in no country has it had the same legislative attention. Strict laws govern the manufacture and sale of food products. Dealers are prohibited in the sale of any product that may be dele-

terious to health. There is method and consistency in their laws governing such, and the punishment for any violation of such laws is severe. They not only allow the sale of the butter substitute, but foster its manufacture, in consequence of which the poorer classes have a butter that is at once cheap and healthful, while if similar laws were to be enacted in Great Britain as in some of our States most of those composing the lower classes of that country would become destitute of this common necessity.

The following quotation from a late London periodical is to the point: "It is a pleasure to be able to state that the introduction of margarine has led to a distinct improvement in the manufacture of butter. The best margarine is made from beef suet and other healthful ingredients, and is so palpable that, to prevent their goods from being supplanted, the manufacturers of butter have not only had to exercise greater care, skill and cleanliness in the making, but they have had to pay especial care to the feeding of the cows. Margarine lacks some of the fats of pure butter, and is, perhaps, not quite so digestible, but this last quality is a factor quite unappreciable by a healthy person. In word, margarine is preferable to the cheaper sorts of butter."

It will thus be seen that it is a recognized competitor of butter in that country, and, on its merits, is supplanting it to some extent on account of its acknowledged purity, cheapness and healthfulness.

England necessarily relies on the outside world to supply her with breadstuff, which comes from the United States and other countries. She is dependent on other countries for other articles of food, and in the matter of dairy products her supply has been derived largely from Holland for years. Many of those heretofore manufacturing dairy products have given their attention of late years to the manufacture of a butter substitute which they call "margarin," and the number of "Margarin Fabriks" throughout Holland is largely increasing. The number of factories throughout Germany, Austria, Denmark and England is also largely increasing, although in the first two it is a comparatively new business.

The writer had the pleasure of visiting the works of Anton Jurgens at Osch, one of the pioneers in the business, and whose factory originally produced butter for a century or so, but now manufactures margarin exclusively. Tons of the margarin are made every day and shipped direct to London and other large cities, where it enters into immediate consumption. The processes employed are cleanly and the ingredients pure and wholesome. Pure milk and cream enter into its manufacture, and one could not but be impressed with the cleanliness and care taken in the blending of the ingredients, of which refined cotton oil forms a considerable portion. The milk and cream are kept in porcelain vats, and the churns are scalded and scrubbed to whiteness. The floors are of tiling, and, with the proverbial cleanliness of the people, are scrubbed and cleaned many times daily. The margarin produced, and which the writer tasted, certainly compared well with our best creamery butter, and it would require an expert to detect the difference. It is put up in firkins the same as butter, and also in rolls. The packages are labelled "Margarin" and sold as such.

The grocers in the cities keep both butter and margarin for sale, and were it not for the fact that Australia is now shipping to England cargoes of butter which are selling at comparatively low prices, the margarin would have but little competition. As it is, the degree of perfection reached in its manufacture is making serious inroads on the butter industry of that country. While its progress

or increase in manufacture in this country has been large when we consider the disadvantages it labors under, were it to receive the same fostering as it does in other countries, its development as a common article of food would bring it into general use. The iniquitous government tax should be removed; the prohibitory laws of the several States should be repealed, and the manufacture of it (when done properly) should be allowed in every State in the Union.

Some of the large manufacturers here are testing the legality of the laws of those States in prohibiting its sale under the original-package law. As the government has sanctioned its manufacture by imposing a tax, it is an acknowledgment that it is a good and healthful substitute for butter. If such is the case, wherein is the justice of those State laws prohibiting its manufacture or sale?

That our whole country will ultimately acknowledge its fitness for the purpose for which it is made and allow it to occupy the place it is intended for, as in other countries, is the belief of all its friends.

TO COAL AT KEY WEST.

The Government to Establish a Naval Station at the Florida Port.

The decision of the United States government to establish a naval coaling station for the north Atlantic and Caribbean sea fleet at Key West, Fla., is an important announcement. Besides adding the additional business it brings to this Florida port, the coal-miners of Alabama and Virginia will receive a trade now supplied by foreign markets, and the government will make a considerable saving. In the report of the bureau of equipment on this subject it is shown that the prices per ton at the several coaling ports now supplying these ships to be as follows: Kingston, Jamaica, \$9.58; Cartagena, \$9.00 to \$9.50; Colon, \$11.00; Key West, \$6.05 1-5. The price of the coal at Key West is for anthracite now there in store, and includes hauling to and from the place stored to the ship. Were there proper facilities for storage on the water front the cost of this would be reduced at least seventy-five cents, and it would be possible, were proper storage provided, to supply good bituminous at not over \$4.00. But even at the present price it is very clear that it would be much cheaper for our ships, if their service permitted, to take coal at Key West than at Jamaica or Colon.

A statement issued on the authority of the Navy Department says:

"The Secretary has determined to issue orders that in all cases, when practicable, ships cruising the Caribbean sea shall go to Key West for coal. Thus a great saving will be effected for the navy and American coal will be used instead of foreign coal, which is now generally found at Kingston, Cartagena and Colon. A market will be afforded for many tons of Alabama, Tennessee or Virginia coal. Recent appropriations will enable the Navy Department to increase the facilities for the storage of coal at Key West, and this will be promptly done."

"It is the Secretary's purpose to send the *Montgomery* to Mobile about October 1 next, where she will receive the testimonial now awaiting her at the hands of the ladies of Montgomery. Then she will, unless some public exigency prevents, cruise for a time in the waters of the gulf, and miners will be invited to send to her for trial while there specimens of their coal. All Alabamians hope that the result of these trials will be to secure for Alabama coal the market thus opened. Everything will depend, of course, upon the price at which coal can be laid down at Key West, and its steaming qualities. The *Monterey* has been ordered to make

similar trials of coal in Puget sound, in the extreme northwestern portion of our country.

"The Navy Department looks upon Key West as a point of great importance in case of war. Any foreign naval power that could maintain itself at Key West in a time of war would command the gulf. As a naval station its importance to the United States cannot be overestimated."

Washington Notes.

By Thomas P. Grasty.

There are thousands of men to whom opportunities are always coming, but there is only one man in a thousand who has gumption enough to see and courage enough to seize them. This one man, if he be a general or a statesman, goes down into history as a "man of destiny," for human nature loves to enwrap success with a nimbus of mystery by calling men of courage and action men of destiny. Six months ago the President of the United States was under a popular cloud. The people, always wrong at first, always right at last, were condemning his Hawaiian policy and imputing to him other blunders. His star seemed to be shrinking and wan. But here comes along a new opportunity. He sees it and seizes it. There is a tumult at Chicago. The dignity of the government is threatened. He promptly and vigorously sustains it. Presto change, his star looms up big and bright again. His place in history as the man of destiny of this day and time is safe.

* * *

A coming man in this reverenceless age is an object of far greater interest than one who has had his day. We are concerned far more about what will be than what has been. We listen more eagerly to "pointers" about men's futures than to stories of their past. The coming man I have in mind right now combines the elements which go to make safe pilots at the wheel of ships of state. The fact that he possesses these rare qualities is the reason why he is not yet talked about as much as some other men of smaller calibre. He doesn't "boom" himself, because he is most bountifully endowed with that discreet intuition which discerns the peril of premature delivery from the womb of fame. The man I am talking about is Charles W. Dabney, the assistant secretary of the newest department of the government—the agricultural. He came up from the Southland. The star of this man of enormous reserve forces will be found moving zenithward big and bright, like that of the man who brought him to Washington and almost into the cabinet.

* * *

Speaking of men with stars and Southern men at Washington reminds me of a coming man in a field of equal usefulness, if not, indeed, of equal prominence with politics. This is W. A. Turk, the general passenger agent of the Southern Railway Co. His star is one of no mean magnitude and is brightening apace. Five years ago few of us had heard of him; today he is at the head of the passenger men's procession in the South; tomorrow he may be found—but never mind about tomorrow. He is big in stature, broad in mental scope, a staunch, firm friend, and I imagine he would make a hard-fighting, but withal fair-fighting, enemy.

* * *

Apropos of railroad men, it is a matter of profound thankfulness to thousands of men, women and children North and South and East and West, for all who know him love him, that Harry Fuller, general passenger agent of the Chesapeake & Ohio Railroad, is recovering from his recent painful peril of limb and life itself which for a time made many suffer the keenest sympathetic anguish. Though his line is an east and west one, it is none the less a Southern one, and though he be not a native of the South, none who come in contact with him know any difference, for there is a gracious charm in the manner of the man, an ingenuous cordiality, that identifies him with the very best and highest type of the Southern gentleman.

FINANCIAL NEWS.

\$1,000,000 Trust Company for Little Rock.

A financial institution of large calibre is proposed for Little Rock, Ark. Eastern and local parties contemplate the organization of a \$1,000,000 trust company. The stockholders are to include men of prominence in the financial, commercial, manufacturing, real estate and professional circles of Arkansas, together with some Eastern capitalists and concerns having foreign connections. P. E. Brugman, of Little Rock, who is interested, in speaking of the project, outlined the plans for its formation as follows:

"This company will not only promote the construction of steam railways, but will interest itself in the building of street railways, water works, electric plants and furthering the interest of manufactories and other enterprises calculated to assist in the upbuilding of a community. As soon as the trust company is organized it will be in a position to control the investment of Eastern and foreign capital in this section of the country.

"The men who will organize the company enjoy the confidence of Eastern and foreign capitalists, and it is through their influence that large sums of money have already been advanced to private individuals and public enterprises in Arkansas. It is designed that the company shall be a strictly Arkansas institution, organized and controlled by Arkansas men who are identified with and are desirous of promoting the development of the various industries of their State. Foreign parties who have money to invest in legitimate enterprises have expressed a desire to subscribe to its stock, and will do so at the proper time if our citizens show a disposition to take hold in earnest. Such an institution would not only be extremely profitable to its shareholders, but would be a powerful stimulant to our banking, manufacturing, mercantile and other varied interests."

New Financial Institutions.

Jacksonville, Fla.—The organization of a mutual insurance company is contemplated. Charles H. Smith can give particulars.

Little Rock, Ark.—The organization of a \$1,000,000 stock company is proposed.

Little Rock, Ark.—The People's Building and Loan Association has been incorporated with James Mitchell as president; L. W. Cherry, vice-president, and C. F. Penzel, treasurer.

Merkel, Texas.—Abilene parties are taking steps to organize a bank.

New Orleans, La.—The New Orleans Insurance Association has been incorporated with George Lanaux, president, and Charles D. Delery, secretary.

Rayne, La.—A bank with a capital stock of \$15,000 is being organized.

Interest and Dividends.

Greenwood, S. C.—The Greenwood Cotton Mills has paid a 3 per cent. dividend.

New Orleans, La.—The Mechanics & Traders' Insurance Co. has declared a semi-annual dividend of \$5.00 per share, and the Security Building and Loan Association a semi-annual dividend of 4 per cent.

New Bond and Stock Issues.

Baltimore, Md.—The Herald Publishing Co. has executed a mortgage with the Safe Deposit & Trust Co. as trustee to secure an issue of 200 5 per cent. gold bonds of \$1000 each, payable in 1914.

Louisville, Ky.—An issue of \$1,000,000 4 per cent. 40-year bonds for park improvements is proposed.

Montgomery, Ala.—The issuance of \$300,000 of bonds for road improvements by Montgomery county is being discussed.

San Antonio, Texas.—The San Antonio & Gulf Shore Railroad Co. has applied to the State railroad commission for authority to issue bonds at the rate of \$8000 per mile on about twenty-one miles of road.

Savannah, Ga.—The issuance of \$500,000 of improvement bonds by Chatham county is proposed. The bonds would run twenty-five or thirty-five years at 4 or 5 per cent. interest.

Financial Notes.

WILLIAM U. WILSON, JR., has succeeded W. A. Carpenter as president of the Lynchburg National Bank, Lynchburg, Va.

F. A. SALOMONSON and others, representing, it is stated, nearly \$1,000,000 worth of property at Tampa, Fla., have secured a temporary injunction restraining that city from issuing the \$350,000 worth of bonds voted on July 14.

THE Gate City National Bank, of Texarkana, Ark., has gone into voluntary liquidation by resolution of its stockholders.

Virginia Association of Engineers.

At the recent summer meeting of the Virginia Association of Engineers the president, C. S. Churchill, in his annual address set forth the various occupations represented in the membership of the association, showing the influence exerted by these members in the development of the resources of the country. Attention was called to the progress that has been made during the last few years and the line of future development clearly marked out—the establishing of plants for the turning out of the finished products, such as stove castings, structural iron and steel, steel plates and bars, etc., from the raw material, instead of sending it away to be finished elsewhere. Particular attention was called to the production of steel by the open-hearth basic process, in which way the iron of this section can be advantageously treated. The bi-products of manufacture were shown to be a large element in the profit of the manufacturer, and to the saving of which much attention was being given.

Mr. Walter R. Staples, Jr., gave a talk on the construction of the canal connecting the headwaters of the Mississippi with the headwaters of the Illinois river, exhibiting at the same time a number of photographs of the work taken while in process of construction. The special feature of the work was the entire use of concrete masonry in the walls, locks, etc., which was put in at a cost averaging about \$8.00 per yard.

The address of Colonel Craighill before the A. S. C. E. was read before the association and brought out much discussion. That part relating to the construction and control of the Nicaragua Canal received special attention, and a resolution was passed instructing the secretary to communicate with Virginia's representatives in Congress urging them to use their influence for the early construction and completion of the Nicaragua Canal and its ultimate control by the United States government.

THE Southern Exchange Association, organized as a result of the recent Convention of Southern and Northern Business Men, will have an agency in each State to spread information concerning the resources and business possibilities of the South. The growth of the South from 1880 to 1890, according to the figures gathered by the association, was highly satisfactory. Farm products increased 16 per cent., manufacturers 100 per cent., the value of real and personal property 50 per cent. and the population between 15 and 20 per cent. This was accomplished with but little aid from immigration. An effort will be made to obtain a share of immigrants and also to attract citizens from the North. The South is in good shape for an era more rapid development than it has ever known.—*St. Louis Globe-Democrat.*

RAILROAD NEWS.

[A complete record of all new railroad building in the South will be found in the Construction Department, on page 14.]

Norfolk & Southern.

Net earnings of \$146,149 are shown in the results of operations of the Norfolk & Southern Railroad for the year ended June 30, 1894. This is an increase of \$8045. The figures for the year just closed and the preceding one are reported as follows:

	1894.	1893.
Gross earnings.....	\$435,383	\$437,160
Operating expenses.....	289,234	299,050
Net earnings.....	\$146,149	\$138,104
Other income.....	2,811	3,010
Total.....	\$148,060	\$141,114
Charges.....	130,775	121,114
Surplus.....	\$18,185	\$20,000

The general balance sheet shows cash on hand \$93,379, and a profit and loss account of \$99,794.

The following changes are to be noted: A decrease in gross earnings of \$1777, decrease in operating expenses of \$9822, an increase of \$8045 in net earnings, a decrease in income other than earnings of \$199, an increase in charges of \$9661 and a decrease in surplus of \$1815.

Chesapeake & Ohio's Year.

The Chesapeake & Ohio Railway, pending the issue of its annual report for the year ended June 30, has given out a statement of its profit and loss account. The figures show that the company, after charging off all miscellaneous items, earned the interest on all its bonds and a small surplus, viz., \$14,057.33. In face of the adverse conditions of the period covered the showing is a gratifying one. The company, as one of the large soft-coal carriers, had to contend with three strikes of miners since January 1, including the great strike from the middle of April till the latter part of June. A considerable amount of work in the way of betterments has been done during the year and included in operating expenses, and the physical condition of the property maintained on its usual high standard. The figures in detail are:

By balance from June 30, 1893.....	\$620,137
Gross earnings.....	\$9,044,108
Less expenses and taxes.....	6,027,127
Net earnings.....	3,016,981
Net from operation of Buckingham branch.....	3,820
Total.....	\$3,640,938
Debit—	
To interest on bonded debt.....	\$2,948,111
Interest, discount and exchange.....	550,964
Less dividends from securities.....	9,555
Total.....	\$3,640,938
Loss on grain elevator, including fixed charges.....	\$9,788
Rentals, net.....	2,621
Sundry old acc'ts written off.....	4,799
Balance to credit in new account June 30, 1894.....	634,194
Total.....	\$3,640,938

Wyandotte & Southeastern.

An Arkansas project of promise that is being steadily pushed to completion is the Wyandotte & Southeastern Railway. This company was chartered in December, 1893, for the purpose of building and maintaining a first-class railroad from Wyandotte, Hot Springs county, southeasterly to Pine Bluff, passing through and developing an agricultural and timber country. The road at present is twelve miles long, running from Wyandotte to a point east of Fenter, Ark. An extension is now being made from Graham southeasterly with a view to crossing Saline river at the proper point to reach Sheridan, the county-seat of Grant county. There will also be built a line from Graham to a point just outside of Malvern. This will be completed this year, and when finished will become the main line of the road, as it will connect with the Hot Springs Railroad, giving a new direct line for travel coming from the North and East to Hot

Springs. The officers of the company are: J. C. Hamlen, of Portland, Me., president, and B. F. Copeland, of Little Rock, Ark., secretary and treasurer.

Illinois Central Improvements.

The Illinois Central Railroad Co. has been making some expensive improvements on its line to New Orleans. More than twenty miles of track through the swamps north of that city, between Frencier and Ponchatoula, have been elevated at a cost of \$130,000. The grade has been raised above the extreme high-water mark, the present elevation averaging three feet higher than the old one. Heretofore every year the tracks have been overflowed, causing constant worry and expense. A force of 450 men were kept constantly employed on the work between January 1 and July 1. Two steam shovels, six work trains and three switch engines were also employed in the work and 34,000 carloads of earth and gravel were consumed.

The Illinois Central is making other extensive improvements. Fifty miles of track between New Orleans and Canton, Miss., are being relaid with new 70-pound steel rails, and forty miles between Water Valley, Miss., and Cairo, Ill., are undergoing a similar overhauling, except that on the upper divisions 75-pound rails are being put down. The old 56-pound rails are being sent to the "Little J," the gage of which is being changed to the standard. Only twelve miles of track remain unfinished. The "Little J" road runs from Natchez to Jackson, Miss., a distance of 100 miles, and crosses the Yazoo & Mississippi Valley at Harriston, Miss. This work has been prosecuted slowly and has required an outlay of upward of \$300,000.

Penny Car Fares.

A penny fare is the enticing incentive to street-railway travel at Savannah, Ga. The rapid-transit lines of the city have taken up that expensive luxury, a rate war, and as a result the cost of riding has been brought down to a penny. This reduction, however costly for the railways, has caught the popular fancy, and half the population of the city are now said to spend their afternoons on the cars. Grown folks who never rode before and children of all ages are now traveling on an extensive scale, spending their coppers with a reckless disregard for the financial stringency and hard times. The citizens of Savannah are enjoying the novel conditions in frolicsome style, while the stockholders of the lines take it in a more serious manner and wonder where it will end. In the meantime, the railways are building up a large and varied collection of copper coin.

Railroad Notes.

STOCKHOLDERS of the Rio Grande & Eagle Pass Railroad Co. at their recent annual meeting elected the following directors: J. J. Haynes, D. H. Randolph, F. M. Dick, J. Deutz, Sr., J. Z. Leyendecker, H. C. Smith, P. J. Milan, C. G. Brewster and C. F. Wright, Jr. Officers were elected as follows: C. B. Wright, Jr., president; D. H. Randolph, vice-president; P. J. Milan, general manager; J. L. Pulliam, secretary and treasurer.

THE old Blue bridge on the Baltimore & Ohio over the Patapsco river, just outside of Baltimore, is to be replaced by a new structure. This bridge has been in use about twenty-five years. The new bridge will be of steel throughout, of the standard triangular truss pattern, 126½ feet long, twenty-eight feet wide, and built on granite foundations. The Concord Iron Works has the contract.

RECEIVERS Morgan Jones and John D. Moore, of the Fort Worth & Denver Railroad, returned recently from an inspection tour of the road. Mr. Moore reports that everything was found to be in fine condi-

tion and that the outlook up the line is excellent, especially for cattle on the extreme northwestern portion of the road.

SOUTH CAROLINA roads for June show increases in earnings. The Columbia, Newberry & Laurens reports an increase of 10.89 per cent.; Florence Railroad, 15.44 per cent.; Port Royal & Western Carolina, 48.66 per cent.

A NEW line of railroad running from Tennille to Sandersville, Ga., has just been completed. The new road was built by a company of which Louis Cohen is president with the co-operation of the Central Railroad of Georgia.

THE Kentucky Midland Railroad is involved in a controversy with the municipal authorities of Frankfort, Ky., over alleged unpaid taxes. The city authorities have seized the rolling stock of the road, causing a tie-up. The railroad officials claim exemption from the taxes, and an interesting legal fight is in prospect. The city of Frankfort and the county of Franklin each have \$150,000 in the Kentucky Midland.

FRANK D. JONES, chief engineer of the Glendon & Gulf Railroad, has been appointed superintendent of that road, in charge of the operating and traffic departments, with headquarters at Glendon, N. C. The office of chief engineer has been abolished, and the duties of that office will be attended to by the superintendent. This road is completed about twenty miles. It is projected to extend from Glendon to Charlotte, N. C., a distance of eighty-six miles, opening up large deposits of coal, iron ore, brownstone, etc., and some of the finest long-leaf pine regions of North Carolina.

THE earnings of the Southern Railway Co. as now reported, and which showed for the third week of July an increase of nearly \$6000, are on 2011 miles of road, extending from Washington and Richmond to Atlanta, and including the Western North Carolina and some other small branches. On August 1, 1894, there was added to the system the Columbus & Greenville, 164 miles; Charlotte, Columbia & Augusta, 191 miles, and the East Tennessee system of 1305 miles. On September 1, 1894, will be added the Georgia Pacific, 566½ miles, and the Louisville Southern, 130½ miles; the Knoxville & Ohio, 69 miles, will shortly be added to the system.

AT a recent meeting of the directors of the Louisville & Nashville Mr. Gardner M. Lane, a wealthy Bostonian, was elected a director to fill the vacancy in the board caused by the death of Mr. Henry Authon, of New York.

THE Chattanooga Belt Railway, built by the Chattanooga Union Railway Co., and embracing over forty-two miles of railroad connecting with the various railroads and manufactoryes in and about Chattanooga, Tenn., will be offered for sale in September. The road is operated by the Alabama Great Southern.

THE plan of reorganization for the Richmond, Nicholasville, Irvine & Beattyville Railroad, which was recently outlined in the MANUFACTURERS' RECORD, is meeting with much favor among the bondholders. The Louisville Trust Co., of Louisville, Ky., is receiving the bonds for deposit, and has already been sent a large number.

THE Western Maryland Railroad makes a favorable exhibit for the month of June. The gross earnings were \$106,862.76, an increase of \$864.65; the expenses were \$71,646.12, a decrease of \$1934.37. The net earnings for the month evidence an increase of \$2799.02.

INVESTORS in railroad stocks are being attracted to Southern securities by the brightening outlook in the South. The Wall-street letter on this subject says Louisville & Nashville has been persistently bought by strong houses, and even the radical bears on the stock have

now turned bulls, owing to the improved business outlook in the South. In fact, the situation in the Southern States, with the exception of a transient lull among the iron manufacturers of Birmingham, is so encouraging that a new pool in Richmond Terminal securities has begun operations on a large scale.

Wants to Move South.

Col. Frank Corcoran, of Mexico, Oswego county, N. Y., has recently been in Washington on his way South. He is reported to be the largest manufacturer of butter plates, berry boxes and that class of ware in the Eastern States. In an interview with the Post he said:

"I am on my way for a Virginia prospecting tour. It is my intention to remove my plant into Virginia some time this fall, and my visit down in that country will determine just where I shall locate it. My preference just now is to get in the neighborhood of Norfolk or Petersburg, the conditions being favorable. In that region they have plenty of the white-gum timber, which is just the right material from which to make our class of ware. In Oswego county we have been using the white beech, which is also excellent wood for that purpose, but the timber is not as plentiful up there as in former years. Aside from that, where we are now located we are placed at some disadvantage because of railroad discrimination, having only one railroad line passing within reaching distance of our plant. It costs more to send our manufactured articles forty miles to Rome by rail than it will cost us to ship by water from Norfolk to New York and then by canal to Buffalo. That is quite an item in itself."

"Another reason why I want to move is that we could work the plant eight or nine months in every year in that milder climate. In Oswego county we are fortunate to get in five months of work in the year on account of the heavy and continuous snow. We employ a great deal of woman labor, the work being done principally by machinery, and these women cannot get to our works near the timber land through the heavy snowfalls. When the women cannot reach there the men who are employed are, perchance, compelled to lay off, and thus you see what a great handicap that is. When we get ready to move we will only take a few employees from Oswego county, choosing the others from people who want employment who live near the plant's location. The work is light and easily learned."

Wants a Location.

A printing and book-bindery establishment having about \$15,000 invested in equipment desires to find a new location in a town of from 10,000 to 15,000 people, preferably in North or South Carolina, Virginia, West Virginia or Georgia, although any other Southern State would be considered. The company desires to locate in a town where there is a good local printing business, and preferably where some financial backing could be secured in the way of stock.

THE experimental line of steamers which commenced running between New Orleans, La., and Manchester, England, last fall has proven a decided success. It is now announced that the Neptune and Columbia Steam Navigation Companies have decided to place a fleet of thirteen steamers in the trade during the season of 1894-95. It will be known as the Pioneer Line, and will ply directly between New Orleans and Manchester. The first steamer of the line will leave in October. Charles Stoddart & Co., of New Orleans, are the agents of the new line.

THE Annapolis (Md.) Water Co. has awarded contract to the Chattanooga (Tenn.) Pipe & Foundry Co., at \$21,000, to furnish cast-iron water pipe for its new plant.

MECHANICAL.

Treatment of Gold Ores—The Murphy Process.

It is a well-known fact that many gold-bearing deposits in several Southern States are yielding unsatisfactory returns, owing to the difficulties encountered in extracting the metal. New methods in this industry are, therefore, of general interest to the large number of owners and developers of such properties. The following article on the Murphy gold process, prepared by Mr. J. G. Murphy, the inventor, may offer some useful suggestions in this direction:

Modern investigation shows us conclusively that for knowledge of free-milling gold ore we appeal to scientific books and treatises in vain. This will be shown in what follows. It is a singular fact that for free-milling gold ore, so called, no milling process was devised that would save the values contained in the ore closer than 70 to 80 per cent., and in many cases less than 60 per cent. Many mines are not operated for the reason that a sufficient percentage of the gold contained in the ore could not be saved at a sufficiently low rate for treatment to render the operation profitable.

We may now pass to the question of what deduct \$15.00 to \$20.00 per ton for treatment—now 95 per cent. of \$80.00, \$76.00; less \$15.00 or \$20.00, cost of treatment, \$61.00, or \$56.00 net. In such a case as this it will be seen that there is but little choice between milling and smelting, as the increased saving by the latter method balances the difference in the cost of treatment. But the majority of gold mines will not yield ore of sufficient richness to pay the smelting charge alone. We often hear stories of mines which are said to yield ore to the value of \$200 and more per ton. Samples can be obtained from any gold mine which will yield by assay \$1000 to absolute gold approximating several hundred thousand dollars per ton, but on a commercial scale by carload lots there are but a small percentage of the mines that will yield ore of the average value of \$10.00 per ton, but this value will not pay the smelting charges. In a majority of mines from which the ore is shipped to the smelters careful selection is needed, and often not more than 10 per cent. of the output can be shipped with profit. Of the total gold production of the world more than 90 per cent. is the product of mill and placer operations.

We may now pass to the question of what

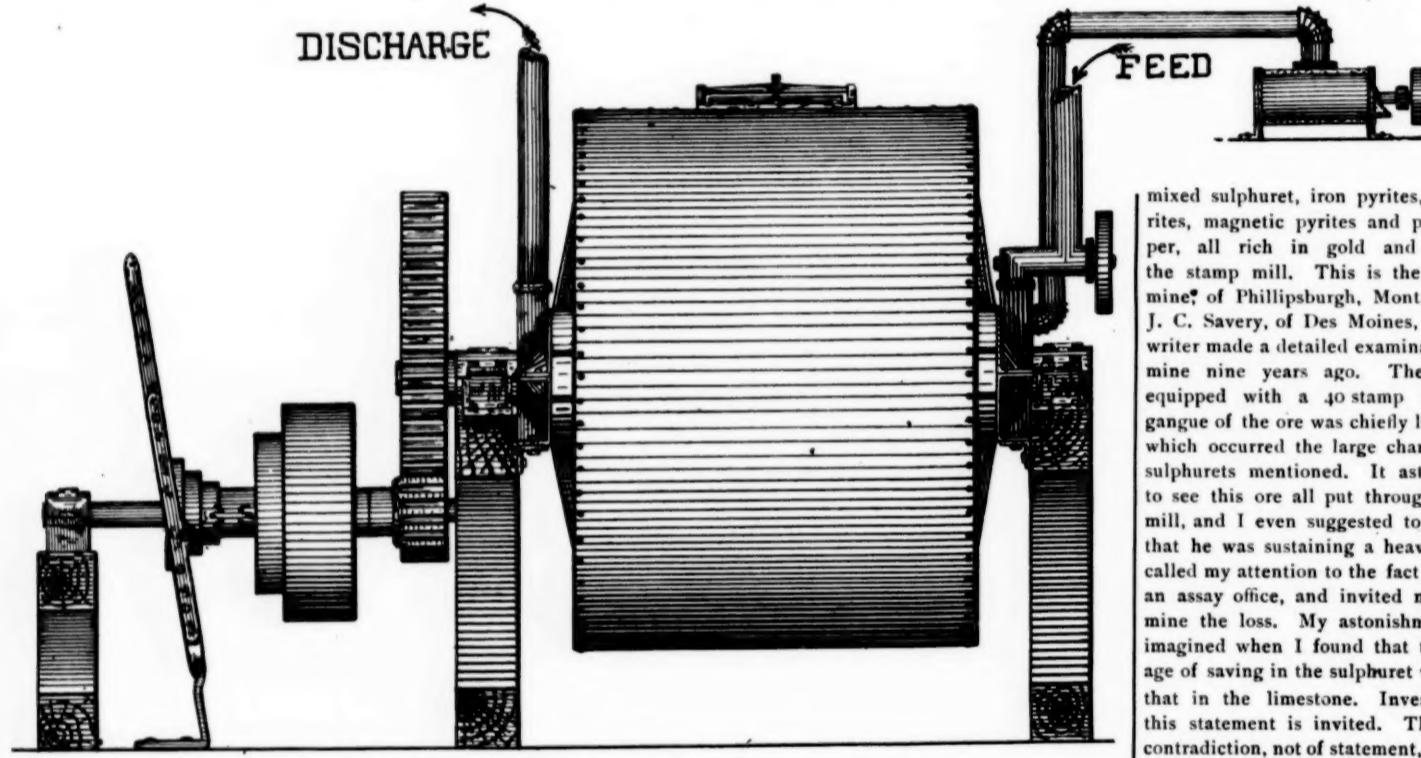
the same diameter as the shoe. This die will be on an average four and a-half to five inches above the bottom of the mortar; the ore is fed into the mortar in modern practice by a self-feeder, and is crushed between the shoes and dies.

A quantity of mercury is fed directly into the mortar, varying in quantity with the richness of the ore. As the ore is pulverized the gold is liberated, which, falling to the bottom of the mortar, comes in contact with the mercury and is amalgamated. The amalgam so formed is saved in battery and outer plates of copper, the surface of which are amalgamated. We will not discuss this subject in detail, as we are dealing with principles only.

A current of water passes through the mortar, which is the power that discharges the crushed ore from the mortar. The discharge is through screens of forty mesh (1600 spaces per square inch). The quantity of water used is twelve miners' inches, 144 gallons per minute for a mill of sixty stamps; or one miners' inch, twelve gallons per minute, per section of five stamps. It will be seen that the capacity of the mills depends upon the rapidity of discharge. The attempt to use sixty mesh screens has been made. This was found impracticable,

the ore in the form of flour gold. These mines are rich in chemical value; commercially, however, the Gloster mill will not yield more than 50 to 60 per cent. to the stamp mill; the Southern Cross and Red Lion, 25 to 30 per cent.; the Broadway, 40 per cent. For this reason these mines and others have not been profitably and properly operated. The ores of these mines are of good grade for a milling operation, but not sufficiently rich for smelting. All of the ore of the Gibbonville (Idaho) district fall under this head.

Among the rich and famous sulphuret mines may be mentioned the Moose and Dolly Varden, situated on Moose Hill, near Alma, Col.; the Gregory and Bobtail mines, near Black Hawk, Col. These mines produced millions in gold ore, all of which was smelted in the establishments of Professor Hill, one of which was located at Alma and the other at Black Hawk. The ore was very rich, and in addition to the mining, smelting and shipping charges, yielded the mine-owners good profits. The gold in these mines was associated with copper pyrites and peacock copper bornite. I saw another mine equally and even more famous than either of those mentioned above, in which existed large chambers of



THE ALSING CONTINUOUS-FEED AND DISCHARGE PULVERIZING CYLINDER.

Gold mines are variable in the character of their output—first, with respect to the value of the ore per ton, and second, with respect to its metallurgical character. There are other differences, but in what follows we have to consider these two conditions alone.

Is a gold mine valuable? This question involves a knowledge of the values of the ore per ton and the cost of the treatment. The cost of treatment depends upon the character of the ore. The common operations for the extraction of gold are milling and smelting. The cost of milling per ton in a mill of, say, forty stamps will not exceed \$1.25 per ton (high estimate). The charge for smelting is \$15.00 to \$20.00. It is apparent at once that ores which would not be commercially profitable for smelting would pay handsomely if milling were possible. In general milling ore would not pay for the cost of smelting unless it was exceptionally rich. Suppose an ore to be worth \$80.00 per ton, but is nevertheless free milling, an exceptionally high saving by the milling process as now conducted would be 75 per cent.—75 per cent. of \$80.00 equal \$60.00; less \$1.25, cost of milling, equal \$58.75. When the ore is sold to smelting companies they usually pay for 95 per cent. of the assay value of the ore and

constitutes a free-milling gold ore. The answer to this is by no means easy. In the usual acceptance of the term, it is an ore in which gold occurs in the native state. Correctly speaking, it is ore which will yield a sufficient percentage to the milling process to make the operation commercially profitable.

Rock cannot be properly called an ore unless by metallurgical treatment it will yield a profit; hence we see that rock which will yield \$20.00 per ton, but not free milling, cannot be properly called an ore, while a 10-foot vein of \$8.00 ore (free milling) would be very valuable.

Is the product of a mine in which gold occurs in the native state correctly termed free milling in all cases? Let us examine this question with care. The stamp mill is the machine employed for the reduction of free-milling gold ores. Briefly, it consists of a stem-tappet, head and shoe, weight 650 to 1200 pounds, the latter weight now in use in the Black Hills, Dakota. This weight is lifted by the cam, which is attached to the cam shaft, to a height of eight to fourteen inches, the latter drop being used in the Rigby mill, so called. The number of drops is fifty-six to ninety per minute, the smaller number of drops corresponding to the higher lift. This weight falls in a mortar directly on top of a die of

because the capacity of the mill is greatly reduced and the screens clog and break from pressure. Of all the machines used in the metallurgy of gold, the stamp mill plays by far the most important part, consequently we should examine it with care.

We see that it requires a large quantity of water, that a 40-mesh screen is the finest that can be used economically; that the gold, when liberated, must be amalgamated and caught on copper plates. We have stated that in no case would the stamp mill save more than 70 to 80 per cent. of the total gold value. Let us seek the cause. The particles of which all rock is composed vary greatly in size. This is especially true of the particles of gold contained in any free-milling ore. The coarse gold is, as a rule, saved in a well-conducted stamp-mill operation. The fine, however, cannot be saved by this process. The cause of loss has been assigned to the flowing away of fine gold in the current of water passing through the mill. I believe this to be true to some extent, but only the cause of a fractional part. The percentage of coarse and fine gold contained in ore is variable in different mines and different sections.

Some mines, as the Gloster, Southern Cross, Red Lion, Broadway, etc., contain 40 to 80 per cent., often more, of the total value of

mixed sulphuret, iron pyrites, copper pyrites, magnetic pyrites and peacock copper, all rich in gold and treated by the stamp mill. This is the Cable gold mine, of Phillipsburg, Mont., owned by J. C. Savery, of Des Moines, Iowa. The writer made a detailed examination of that mine nine years ago. The mine was equipped with a 40 stamp mill. The gangue of the ore was chiefly limestone, in which occurred the large chambers of the sulphurets mentioned. It astonished me to see this ore all put through the stamp mill, and I even suggested to Mr. Savery that he was sustaining a heavy loss. He called my attention to the fact that he had an assay office, and invited me to determine the loss. My astonishment can be imagined when I found that the percentage of saving in the sulphuret was equal to that in the limestone. Investigation of this statement is invited. This absolute contradiction, not of statement, but, in fact, of all that had been written on the subject, caused me to examine all of my personal experience and to consult others. The result was that more than eight years ago I reached a conclusion, which was announced recently in pamphlet form almost simultaneously by chemists of Boston and San Francisco, viz., that gold in pyrites is mostly, if not entirely, in the free state.

The chemists who wrote the pamphlets announced the existence of gold in iron pyrites (their investigation does not appear to have extended further) in three forms—free, enveloped mechanically and chemically combined. The latter condition is said to be most rare. I doubt if the latter condition exists at all, and in the absence of proof, which is not furnished in the pamphlets, adhere to my opinion. Usually the size of a particle of iron pyrites or any other sulphuret contained in an ore is small; so small, indeed, that they will readily pass through a 40-mesh screen, the size of screen used in a stamp mill. If gold is contained in such pyrites the stamp mill would not save it, as it would pass through the screens unaltered.

Let us now think over the preceding matter carefully and then see if we can decide the cause of the loss of flour gold, and why the gold in pyrites is usually lost in a milling process. Is the heavy loss due to the flowing away of flour gold by

the current of water passing through the mortar, or is it due to the fact that the rock is not broken sufficiently fine to free the gold from the gangue? The great percentage of pyrites found exists in small particles. If pulverized sufficiently fine, can any contained gold be amalgamated? We have now reached a proper point for discussion of the Murphy gold process.

This process may be considered worthy of consideration from a single fact, viz., that investigation is asked. The designer will be glad to have errors pointed out and improvements suggested. This process, designed by myself for the Hartford Syndicate, Limited, comprehends the union of several well-known machines. If any of these can be beaten for its special department, I will be glad to know it and give the substitute its proper place.

The essential features of the Murphy gold process consist of pulverizing to a fine state of division, and even to an impalpable powder if the fineness of the gold demands it; then the formation of a pulp of the consistency of a thin paste in the well-known combination pan, to which we give preference, at the end of which are the usual settlers, also so well known that space for description would be wasted here. The effect of the arrangement of these machines will be—

- That no matter how fine the state of division in which the gold exists in the ore may be it will be liberated from the gangue and rendered fit for amalgamation.

- That there will be no current of water to float the flour gold off.

- That the process can be employed in sections where there is not sufficient water to run the stamp mill.

- That at all stages the process is completely under the control of the operator, so that the batch does not need to pass from the pans to the settlers until the amalgamation is completely determined by the usual method of panning samples.

- That 90 to 95 per cent. of the gold contained in any free-milling gold ore can be saved. This may and will likely be questioned. Apply the following test for confirmation: Take any free-milling gold ore, pulverize to 125 to 200 mesh (generally too will do), take a casserole or other proper vessel, into which put the pulverized ore, wet to the consistency of a thin paste, take a common egg beater, and after introducing the proper amount of mercury agitate the mass for an hour. The result will show a saving of 90 per cent. This is not so perfect as the combination pan, however. The work of the pan is as follows: The muller slaps the pulp out to the periphery, the spiders slap it back, thus making two lateral forces. The revolution of the muller creates a vortex of about six inches in diameter, in and out of which the material constantly passes. We thus have three forces to effect the perfect contact of the mercury with the gold, and therefore say that the Murphy gold process will save 90 per cent., even 95 per cent., of the gold contained in any ore, unless it contains elements which will foul, contaminate or consume mercury, such as native copper and the ores of lead. In the Broadway mine there was a deleterious element in the gangue of the ore which operated against close saving. Professor Clayton was called upon to see if he could not devise some means to save more than 40 per cent. of the value contained in that ore. He spent considerable time in the endeavor to effect that result, but without success. The Professor informed the writer that the Broadway ore contained considerable talc in its gangue, which acted as a grease and prevented the union of the gold and mercury. I will not discuss this, but in the Murphy gold process the existence of talc as a part of the gangue would in no way affect the amalgamation. The whole thing is in the pan, and the forces mentioned are sure to bring about contact of

the gold and mercury, which is all that is needed. It makes no difference whether the gold is contained in iron pyrites, copper pyrites, peacock copper, etc., it will be collected and saved by this process.

As to this process and how cheaply it will treat gold ores, the general description which follows and a study of the plans will be an indication. The mill is entirely automatic, and but a single man at the rock-breaker is needed for a plant of fifty tons or more.

The ore as it comes from the mine is dumped on grizzlies. The fine material passes through and falls to the bin; the coarse lumps fall on the crusher floors directly in front of the crusher's jaws, which should be so set that they are on a level with the floor, thus avoiding lifting. From the crusher bin, which is inclined, the ore passes directly to a set of rolls, where it is crushed to a 30 or 40-mesh screen (900 to 1600 spaces per square inch). After being crushed the ore is elevated, and that which is not fine enough to pass through the screens goes back to the rolls; that which is fine enough passes through the screen into a bin which communicates with the continuous-feed and discharge

be seen that the operation is entirely automatic.

The cost of treatment, as has been shown, is of primary importance for gold ores that will not bear the cost of smelting charges. The cost of crushing by the rock-breaker and rolls will not exceed forty cents per ton. The cost of pulverizing to 200 mesh will not exceed \$1.00 per ton when the ore is first put to a 30 or 40-mesh screen. Taking the total cost at \$2.00 per ton for crushing, amalgamation and retorting, it is seen that by this process we can treat the ore from a large number of mines which by the ordinary processes could not be made to pay.

Cutting-Off and Dovetailing Machine.

For the special class of work it is called on to perform the improved cutting-off and dovetailing machine shown herewith has, by reason of satisfactory work, received liberal endorsement. It is designed for cutting off material to lengths, gaining and dovetailing it for the seat and back irons for school desks. It is also adapted for plumbers' woodwork, etc.

This machine is constructed on a substantial iron frame, with joints planed and

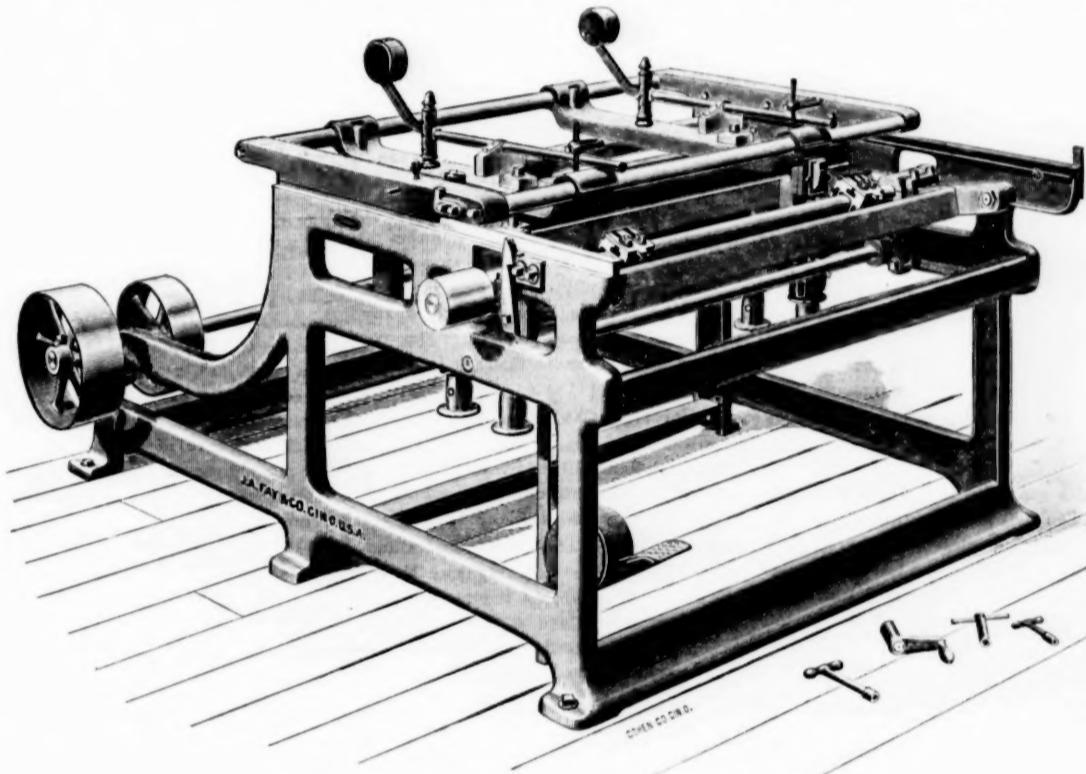
vertical spindles and cutters may be added when desired to finish the ends of the strips, thus completing them for glueing together.

The several arbors are of steel, large in diameter and run in long self-oiling bearings. The countershaft is placed in the end of the frame of the machine, giving good lengths of belts. With this machine a great saving of time and labor is accomplished, and it is claimed that uniformity in distance and length is attained more perfectly than by any other system.

For further information address the makers and introducers, J. A. Fay & Co., 270 to 290 West Front street, Cincinnati, Ohio.

Tinplate Output in America.

Special Agent Ayer, of the Treasury Department, reports that during the quarter ended March 31 last thirty-six firms produced 38,260,441 pounds of tin and terne plate proper, against 27,510,441 pounds by thirty-nine firms for the corresponding quarter in the previous year. Of the tinplate, 72 per cent. of it was rolled in the United States. All classes of tin and terne plate produced aggregated 40,423,300



IMPROVED CUTTING-OFF AND DOVETAILING MACHINE.

pulverizing cylinder. This continuous-feed and discharge pulverizing cylinder is the machine to which special attention is called, and to the operation of which the success of the process is due. The illustration herewith gives a view of this machine. There are 3000 of these cylinders (old style) now in use pulverizing flint and feldspar for use in the manufacture of porcelain and pottery. These machines can be seen in operation at Brandywine Heights, Del., South Glastonbury, Conn., etc. The fineness to which it is necessary to pulverize these materials for use is 200 mesh for porcelain and 250 mesh for glazed ware (40,000 to 62,500 spaces per square inch). This machine is patented and known as the Alsing cylinder, manufactured by the J. R. Alsing Co., 60 New street, New York. For the amalgamation of gold it is not thought that it will be necessary to pulverize to 200 or 250 mesh. The ore, pulverized as finely as may be necessary in the cylinder, is conveyed by the discharge pipe to a bin, the bottom of which is arranged in the form of a hopper to feed directly into the pan. The remainder of the operation is exactly that used in a silver mill and will not be discussed, as the operation is well known.

From the preceding description it can

securely bolted supporting the working parts, which are made strong and durable. After the strips to be worked are planed to thickness they are brought to the machine and cut off to lengths, both ends being cut off at one operation by equalizing saws placed on the horizontal shaft that carries the heads for gaining. The gaining is accomplished at the same movement by means of special gaining cutters attached to slotted heads shown. The saws and heads are adjustable on the shaft from sixteen to forty inches.

The horizontal shaft drops automatically below the surface of the sliding table supporting the material to permit the table to carry the strips to the finishing heads for the gains. The T slot or dovetail is formed by properly-shaped cutters inserted in vertical spindles, over which the strips are carried by the sliding table, having arrangements for holding the stuff rigidly as it passes over the cutters.

The vertical spindles are adjustable for different lengths of strips, and also have vertical adjustments for different depths of slots. For some styles of seats and backs an auxiliary pair of vertical spindles are placed after the first pair for cutting a clearance space for inserting the iron after the strips are glued together. A set of

pounds, of which 30,070,701 pounds were black plate produced in the United States. Of the thirty-six firms making formal returns, nineteen used American plate wholly, three foreign plate wholly and fourteen firms used both.

AN order for 360 tons of pig lead, valued at \$25,000, has been received by the Blue Springs Lead Co., of which Mr. S. W. Divine, of Chattanooga, is president. This lead property is being developed, and a shaft has been sunk to a depth of 125 feet. The furnace will, it is expected, blow in about two weeks, or as soon as improvements have been completed and a good stock of ore accumulated. President Divine reports that he has received an assay of the new vein of zinc which was struck on this property recently. It assays 52.15 per cent. as it comes from the mines, which, after being concentrated, will, it is claimed, run up to at least 75 per cent. Preparations are being made to work the zinc deposits. The two veins—lead and zinc—are said to run parallel to each other, and each is from nine to twelve feet wide.

IT is said that the Greenwood Cotton Mill, of Greenwood, S. C., will be enlarged in the near future. Mr. W. L. Durst is president.

COTTONSEED OIL.

This department is open for the full and free discussion of trade topics and practical questions, and contributions are invited from men who are identified with this industry. Items of news are always acceptable.

The First Experiments in Making Cottonseed Oil.

NORTH CAROLINA AGRICULTURAL EXPERIMENT STATION,

RALEIGH, N. C., July 26.

Editor Manufacturers' Record:

In connection with recent articles appearing in the MANUFACTURERS' RECORD for the last few months in regard to the cottonseed-oil industry, I think the following information will be of interest: In 1828 Mr. George Piper was employed by Mr. Jas. P. Brown, of Orange county, six miles east of Hillsboro, who manufactured horse-power mills for grinding corn. Connected with the shop there was water-power which was utilized in showing the operations of the mill to persons desiring to buy rights. One day a would-be purchaser called and desired to see the operations of the mill. Having no corn on hand, Mr. Piper used some cottonseed, setting the mill so it would only crack the seed; in this way they were hulled tolerably well. Later he and Mr. Brown made improvements on the mill and succeeded in hulling and cleaning cottonseed quite well. The kernels were then pulverized, but contained so much oil that they could not be pressed in the flaxseed press which was in use there. This flaxseed press was then improved to meet the requirements of the kernels of the cottonseed, and several hundred gallons of oil were extracted. The oil was tried for many purposes, but was not of sufficient purity to cause the men to go further with the manufacture. If the operations of refining used at the present had been known at that time it is very probable that the cottonseed-oil industry would have dated from 1828, instead of fifty years afterwards.

If, as is generally supposed, the Moravians of Pennsylvania used the oil from cottonseed by boiling the seed and collecting the oil from the top of the water, this discovery antedates any that I am familiar with whereby the oil was pressed from the cottonseed kernels.

H. B. BATTLE, Director.

The Markets for Cottonseed Products.

NEW YORK, July 31.

Our cotton-oil market has taken an easier turn since our last report. If the holdings here and in the South are small, sellers exhibit rather more nervousness in the face of the continued favorable crop reports received from the South, and in consequence crude, as well as refined, may be bought at a fraction less than last quoted. Some skirmishing on new crop deliveries is now going on, but buyers and sellers are still a few cents apart, 23 to 23½ cents being the price asked for prime crude loose at the mills. The following prices are for barreled oils on the spot: Prime crude, 29 cents; off crude, 25 to 28½ cents; prime summer yellow, 32 to 32½ cents; off summer yellow, 31½ to 32 cents; prime summer white, 37 cents; prime winter yellow, 37½ cents; cottonseed soap stock, 14 cents asked.

ELBERT & GARDNER.

Cottonseed-Oil Notes.

THE stockholders of the Rockdale Cottonseed Oil Co., of Rockdale, Texas, held their annual meeting on the 23d ult. The following board of directors were elected: C. H. Coffield, B. B. Baxter, B. Lowenstein, J. Lockett and Fred Graves. The directors elected officers as follows: C. H. Coffield, president; B. Lowenstein, vice-president, and B. B. Baxter, secretary and general manager. The capacity of the mill is to be greatly increased. This is

one of the few mills to declare a good dividend on last season's business.

MR. W. D. ROBERTS, of the Chattanooga Cottonseed Oil Mill, has returned from his tour of the South. He reports the outlook very promising for a good crop of cotton, and consequently plenty of seed.

At a meeting of the Houston County Oil Mill & Manufacturing Co., held at Crockett, Texas, on the 26th ult., the annual election of officers and directors took place. The following officers were elected: J. B. Smith, president; A. H. Wooters, secretary; H. F. Moore, treasurer. The number of directors were reduced from nine to five.

Textile Notes.

THE stockholders of the Gaffney Manufacturing Co., held their annual meeting at Gaffney, S. C., on the 26th ult. This is a new plant which has been in operation for about a year, and a dividend of 10 per cent. was declared. Careful and conservative management tend to produce such results as these. Mr. H. D. Wheat is treasurer of the company.

MR. F. H. FRIES, of Salem, N. C., has been appointed receiver of the Hermitage Cotton Mill at Reidsville, N. C. The company's capital stock is \$120,000, and its indebtedness is about \$26,000. It is probable that arrangements will be made to bond the plant.

THE erection of a cotton factory is in contemplation at Louisburg, N. C., and Mr. G. W. Ford is interested.

MESSRS. P. JACOBS and J. P. Russell, of Washington, La., owners and operators of the Henrietta Cotton Mills at that place, have made a proposition for the removal of the plant to Monroe, La. A new company is proposed with a capital stock of \$50,000, and the proposition as made is favorably considered by the citizens of Monroe.

A PROPOSITION has been made the citizens of Toccoa, Ga., for the erection of a \$200,000 cotton mill. Mr. R. D. Vew, of Avalon, Ga., is interested and made the proposition as representative.

THE cotton mill of the Ledbetter Manufacturing Co., near Rockingham, N. C., was destroyed by fire on the 21st of July. The plant was valued at from \$25,000 to \$30,000 and produced only yarns. Lightning caused the fire.

THE Pineville (N. C.) Cotton Mill was sold publicly last week as advertised, and Mr. S. A. Jenks, of Pawtucket, R. I., became the purchaser for \$16,500. The new Dover Cotton Mills, noted last week as incorporated, will now purchase the property from Mr. Jenks and put it in operation at once.

THE stockholders of the Brookside Mills met at Knoxville, Tenn., last week and elected as directors Messrs. S. B. Luttrell, W. S. Mead, W. R. Tuttle, H. S. Chamberlain and W. H. Van Benchoten; the old officers were re-elected. A gratifying condition of business was reported, and the plant is running with a full force of hands. Large orders are being shipped every day.

THE Globe Cotton Mills, of Augusta, Ga., which has heretofore made thread only, is now preparing to put in forty-eight looms and engage in the manufacture of cloth. New shafting, belting and other necessary supplies will also be put in and the interior of the mill building overhauled generally. Messrs. Ed Whitney and Herbert Clark are setting the new machines.

THE Highland Park Manufacturing Co., of Charlotte, N. C., is about commencing to improve the quality of its produce and will, it is stated, manufacture a new and finer line of ginghams than has been heretofore made in the South.

THE new Dilling Mill at King's Mountain, N. C., has been completed and is about to commence operations.

PHOSPHATES.

Phosphate Markets.

OFFICE MANUFACTURERS' RECORD,
BALTIMORE, August 2, 1

In the phosphate market there is very little of interest to report, and the market is dull, with a light inquiry from manufacturers. At producing points there is considerable activity, and miners in South Carolina and Florida are generally working up to their full capacity. The local, as well as the foreign, demand for rock is fairly active and prices steady. The arrivals of rock during the past week were the schooners E. G. Hight from Ashley river with 750 tons, Josephine from Charleston with 1000 tons and Katie from Port Tampa with 866 tons. The only charter reported was the schooner Edna and Emma, Ashley river to Baltimore.

The tonnage market in New York is quiet and weak for steam and steady for sail. Charters reported for the week are as follows: A British steamer, 1082 tons, from a Southern port to United Kingdom with phosphate, private terms; a schooner from Jersey City to Baltimore, bulk phosphate at 75 cents, and a British steamer, 576 tons, from Tampa to Hull and or Delfzyl with phosphate, one port, 20s.; two ports, — At the close of business today the market is steady, with quotations as follows: South Carolina rock \$4.25 to \$4.50 for crude, \$5.00 to \$5.50 for hot-air-dried and \$6.50 for ground rock, all f. o. b. Charleston. Florida rock is steady at \$4.00 to \$4.25 for 60 per cent. river pebble, \$4.50 to \$4.75 for 65 per cent. and \$5.00 for 70 per cent., all f. o. b. Punta Gorda or Tampa.

Fertilizer Ingredients.

The general market has been quiet and ammoniates are steady, with a good demand for current offerings. The prospects for a good fish catch are somewhat improved, reports being more encouraging. Nitrate of soda is steady, with a fair demand. Sulphate of ammonia is steady, with a moderate offering.

The following table represents the prices current at this date:

Sulphate of ammonia, gas.....	\$3.50@	\$3.75
Sulphate of ammonia, bone.....	3.36@	3.35
Nitrate of soda.....	2.35@	2.40
Hoof meal.....	2.25@	—
Blood.....	2.25@	2.30
Azotine (beef).....	2.25@	—
Azotine (pork).....	2.25@	—
Tankage (concentrated).....	2.10@	2.15
Tankage (9 and 20).....	\$2.10 and 10 cts.	
Tankage (7 and 30).....	19.50@	20.50
Fish (dry).....	22.00@	23.00
Fish (acid).....	13.00@	15.00

CHARLESTON, S. C., July 30.

There has been little change in the market at this point. Business is quiet, and trade of limited extent. Inquiries from foreign points are much more numerous than those from coastwise, and the offerings are better.

The Coosaw river companies have been selling very heavily in the European market, but still the demand from that point is good, with no indication as yet of an overstocked market. These companies are paying more attention to the grade of their rock, and in numerous cases a 62 per cent. article has been the result of their improved methods of preparation.

The coastwise shipments for the week were O. C. Schmidt, 800 tons, for Philadelphia; A. B. Boen, 550 tons, for Philadelphia; Zimri S. Wallingford, 400 tons ground rock, for Newark; E. S. Stearnes, 520 tons, for Weymouth; steamship Elphinstone, 2290 tons, for Europe. This vessel passed the bar drawing twenty-one feet seven inches of water easily. This is the deepest draft taken over the bar since the opening of the jetty channel. There has been a considerable purchase of ammoniates for delivery during the month of July, the buyers thus obtaining advantage of the reduction in rates which has held for this month. After August 1 the former rates will be issued.

Phosphate and Fertilizer Notes.

THE British steamship Suez cleared from

Brunswick, Ga., for Hamburg last week with 2780 tons of phosphate, valued at \$28,000, from the Brunswick Terminal Co. The British steamship Sydenham sailed for Hamburg with 3000 tons phosphate.

THE British steamship Bonington was at Fernandina, Fla., on 26th ult. to load 2200 tons of phosphate for St. Louis de Rhone from the Anglo-Continental Guano Works. The Norwegian steamship Terrier sailed on the 26th ult. for Stettin with 1650 tons of phosphate rock from the Dutton Phosphate Co.'s mines. The British steamship Norlands is loading for Rotterdam with phosphate from the French Phosphate Co. I. G. McGiffin & Co. are the agents for the above steamships, and their cargoes will aggregate 6400 tons, which, added to 18,604 tons previously shipped in July, will make a total of 25,004 tons for the month.

DR. WHITTLEDEGE refused to accept the receivership of the Pharr Phosphate Co. at Bartow, Fla. Mr. B. F. Holland was appointed receiver last week, and has taken charge of the affairs of the company.

THE Lake Hancock Pebble Phosphate Co. is getting off its first shipments of pebble. The company is furnishing one lot to parties in Montgomery, Ala., all rail, and another by steamer for Hamburg.

MR. WILLIAM W. ELLIOTT, deputy collector of the port of Beaufort, S. C., reports the following clearances of phosphate cargoes: British steamship Thomas Melville, for Helsingberg, Sweden, on the 25th ult. with 2227 tons of phosphate rock from the Farmers' Mining Co., and the British steamship Newby, for Birkenhead, on the 27th ult. with 2868 tons of phosphate rock from the Coosaw Company, Beaufort, S. C. The steamship Inverness, previously reported, cleared from the Coosaw Company, Beaufort, S. C.

MR. K. B. HARVEY, deputy collector of the sub-port of Punta Gorda, Fla., reports the clearance of the schooner Sarah E. Palmer on the 20th ult. for Baltimore with 1950 tons of phosphate shipped by the Gulf Phosphate & Mining Co., and the British steamship Amaryllis for Dublin, Ireland, on the 24th ult. with 2328 tons shipped by Comer, Hull & Co. The following steamships entered: July 19, Traves to New York; 23d, Genochil to Venezuela, and Apex to Jamaica.

A NEW feature of shipping is being successfully inaugurated at Brunswick, Ga., by the Brunswick Terminal Co. in the coastwise trade of agricultural phosphate. A large crusher has been put into the works, and already a large trade has been built up with the East.

THE steamship Hurworth cleared from Savannah on Saturday last for Rotterdam with 3156 tons of Florida rock, valued at \$31,560, shipped by I. M. Lang & Co.

THE British steamship Challeton, consigned to B. Arentz & Co., arrived at Fernandina, Fla., on the 28th ult. to load 3400 tons of phosphate for a European port.

A LARGE tract of valuable phosphate land located near Inverness, Fla., was purchased last week by a Charleston syndicate, the amount paid being \$15,000. The deal was made by Chattanooga parties.

A SPECIAL from Ocala, Fla., states that a big phosphate deal is on the carpet for Marion and Citrus counties. Five capitalists from Paris were in that city on the 29th ult., and have made arrangements to purchase a large tract of phosphate land.

THE case of the Commercial Guano Co. against Lee, Pearson & Lee, defendants, and W. W. Gordon & Co., garnishees, was taken up in the Supreme Court at Savannah on the 28th ult. An order was granted by consent authorizing the garnishees to pay into the registry of the court \$635.62, the amount admitted to be in the hands of the garnishees subject to garnishment.

LUMBER.

[A complete record of new mills and building operations in the South will be found in the Construction Department, on page 13.]

Lumber Directory.

Readers of the MANUFACTURERS' RECORD who may be in the market for lumber of any description are recommended to the directory of Southern lumber manufacturers and dealers which appears among the advertising pages.

Extensive Lumber Plant in Tennessee.

Extensive lumber developments are about to be commenced at Erwin, Tenn., by Mr. George D. Miles, of Big Rapids, Mich., and his associates. About two months ago these parties purchased, in the vicinity of Erwin, tracts of lumber lands containing a large body of white pine and considerable poplar, ash, cherry, walnut and basswood, aggregating in all about 150,000,000 feet. The Smoky Mountain Lumber Co. has since been organized to fully develop this property, and Mr. A. S. Whitman, of Chicago, has been chosen president; Geo. D. Miles, of Big Rapids, Mich., vice-president and general superintendent; C. H. Werden, of Merrill, Wis., secretary and general manager, and John E. Norton, of Chicago, treasurer. Work will be commenced at once on the erection of a double-band modern saw mill of 100,000 feet daily capacity, besides laths and shingles, and the plant is expected to be completed in ninety days. Several hundred hands will be employed. The officers of the concern are all practical lumbermen. Messrs. Miles and Werden will locate at Erwin to take charge of the mills, and Messrs. Whitman and Norton will manage financial affairs. The company's capital stock is placed at \$300,000.

A Big Saw Mill.

Mr. A. G. Newton, who is rated as the largest dealer in cypress lumber in the world, closed a trade recently with Messrs. W. A. Rust and D. J. Spaulding, Wisconsin mill-owners and lumber dealers, for the largest and finest body of cypress timber in the parish of Mer Rouge, La. A mill with a capacity of 30,000,000 feet annually and having every modern appliance will be erected one and three-quarters miles from Mer Rouge. The mill will be connected with the Houston, Central Arkansas & Northern Railroad by a spur track that will come in at Mer Rouge.

Southern Lumber Notes.

The saw and shingle mills at Lutcher, La., shut down on the 28th ult. for general repairs, and will not resume operations until September 1.

THE Warren Land & Lumber Co., of Warren, Texas, has laid off all its saws, teams, etc., in its logging department for an indefinite period.

THE L. Miller Shingle Co., at Orange, Texas, and the A. E. Smith shingle mill are crowding their plants to their full capacity. The Bancroft Lumber Co. will commence cutting this week.

THE large mill plant of Wormack & Son, of Nashville, Tenn., consisting of saw, grist, flour and planing mill, was burned on the 27th ult. The loss is estimated at \$10,000, with no insurance.

The receipts of lumber at the port of New Orleans for the week ending the 27th ult. were 1,481,414 feet, and since September 1, 1893, they amount to 69,616,981 feet, against 88,982,637 feet for the corresponding period in 1892-93.

L. G. NICHOLS & CO., of Plaquemine, La., have recently disposed of 3,000,000 cypress shingles, and in a few days will start up their mill again. They expect to keep it running during the remainder of the year.

THE Meridian Planing & Lumber Co., of Meridian, Miss., has recently been

incorporated. The minimum of the capital stock of the company is placed at \$5000, which can be increased to \$50,000. Messrs. I. A. Wetherbee, Geo. S. Covert and I. H. Wright are the incorporators.

THE Raymond Lumber Co., of Raymond, Polk county, Fla., in addition to its extensive lumber trade, is about to erect a hotel on one of the large lakes and a number of cottages for rent. Operations are to commence at once, so as to be ready for the coming winter's business.

THE extensive planing mill and lumber industry operated so successfully by Messrs. Dale, Dixon & Co., of Savannah, Ga., has changed hands. Messrs. Merritt W. Dixon and Henry Mitchell have purchased the entire holdings and plant of the firm. The firm of R. M. Garbutt & Co. at Swainsboro has been revived, with Messrs. Garbutt, Dixon and Mitchell as copartners.

THE new plant of the Huertas Lumber Co., located at East Palatka, Fla., near San Mateo Junction, has just been completed. Steam was turned on last week, and everything worked satisfactory. The company has 9000 acres of first-class yellow-pine timber land on what is known as the Huertas grant.

THE Sanford Lumber Co., at Careytown, Fla., has received six new steel boilers, and the foundations are being laid for them. It is estimated that these boilers will furnish sufficient steam to cut 100,000 feet a day. The company is also building an addition of forty feet on the south side of the mill building to store the lumber when cut.

THE Cummer Lumber Mills, at Berkley, Va., shut down on Saturday for an indefinite period. The owners and managers of these mills have deferred shutting down as long as possible, but as every available foot of storage space is now occupied with timber, this was the only course to pursue. The mills will start up again as soon as the demand will justify.

THE schooner Augustus Welt sailed on the 22d ult. from Sabine Pass for Philadelphia with a cargo of 1,000,000 feet of railroad ties. The schooner Martha is now loading at the Pass for Lagona, Mexico, and cleared on the 27th ult. Five more cargoes are ready for shipment to Mexico and Cuba, and are only awaiting the arrival of vessels to load.

THE extensive plant of the Tampa Lumber Co. at Tampa, Fla., was burned on the 27th ult. The plant, including the saw and planing mill, is a total loss, amounting to not less than \$25,000, with only about \$2000 insurance. Mr. Dorsey, who has for some time been sole owner of the plant, will rebuild immediately. He has already ordered a complete outfit of planing-mill machinery by wire.

THE saw mills of the Bodcaw Lumber Co., located at Stamps, Ark., on the St. Louis & Southwestern Railroad, were partially destroyed by fire on the night of the 26th ult. Two million feet of lumber were burned, with several kilns and outhouses. The main buildings and machinery were not injured. Total loss \$10,000, with light insurance.

THE Norwood & Butterfield Lumber Co., of Northfield, Miss., and the Natalbany Lumber Co., of Hammond, La., have issued a circular to the manufacturers of long-leaf yellow pine. They suggest in this circular that as timber is now being sold in Northern markets for less than cost of production and freight, that a meeting of manufacturers from Georgia, Louisiana, Florida, Alabama and Mississippi be held on the 6th and 7th of August and try and arrange something that would improve the condition of the market. Those interested in such a meeting are requested to address the above companies.

A MEETING of hardwood exporters was held at Roanoke, Va., last week, when a

permanent organization was effected under the style of the American Timber Exporters' Association. Coleman Rogers, of the firm of Gearfoss & Rogers, of Hagerstown, Md., was elected president, and H. N. Laxton, Jr., of the firm of Laxton & Co., of Knoxville, Tenn., was elected secretary and treasurer. A number of firms were represented, and the question of railroad and ocean freight rates was discussed. A standard of inspection and measurement to govern export shipments was also considered. Considerable criticism was indulged in with regard to the rough handling that lumber shipments received at the hands of steamship companies. Several other important matters were discussed at length, notably the depressed condition of the European market and the cause and methods for relief. A number of letters were read from prominent foreign firms condemning the manner in which the European markets were being flooded by consignments from shippers entirely ignorant of the requirements of the export trade. The association adjourned to meet again at an early date.

LUMBER MARKET REVIEWS.**Baltimore.**

OFFICE MANUFACTURERS' RECORD, BALTIMORE, August 2.

During the past week the local lumber market has ruled very quiet, and there is no decided improvement to report. At this period of the season lumbermen generally look for a dull market, and it is thought that the demand will improve in the early fall. There has been some business reported in air-dried yellow pine, and several large sales are reported amounting to over 2,000,000 feet, principally for building purposes. In kiln-dried yellow pine the market continues very flat, with little or no demand and prices very low. Receipts of yellow pine are not as large as usual, and stocks are still ample for the moderate demand existing. The hardwood market shows no change, and there is a light volume of business reported. Planing mills and box factories are doing a fair business, and report orders a trifle better during the week. The foreign exports of lumber from this port for the month of July were 1,277,000 feet, 830 logs of wood and 84,000 staves.

The following list represents the prices current at this date:

[The quotations for yellow pine are for cargo lots, and for all hardwoods the figures indicate values for choice car lots.]

VIRGINIA AND NORTH CAROLINA PINE.	
5-4x10 No. 2, kiln dried.....	\$15 00@ 17 00
5-4x12 No. 2, ".....	17 00@ 18 00
4-4x10 No. 1, ".....	16 00@ —
4-4x12 No. 1, ".....	17 00@ —
4-4 narrow edge, No. 1, kiln dried.....	13 00@ 14 00
4-4 wide edge, ".....	18 00@ 19 00
6-4x8, 10 and 12, ".....	22 00@ 24 00
4-4 No. 1 edge flooring, air dried.....	13 00@ 14 00
4-4 No. 2 edge flooring, ".....	10 50@ 11 00
4-4 No. 1 12-inch stock, ".....	14 00@ 15 00
4-4 No. 2, ".....	12 50@ 13 00
4-4 edge box or rough wide.....	9 50@ —
4-4 " (ordin'y widths).....	8 50@ 9 00
4-4 " (narrow).....	7 50@ 8 50
4-4x12 ".....	10 50@ 11 00
3/4 narrow edge.....	6 00@ 6 50
3/4 wide.....	7 50@ 8 50
3/4 10x16 wide.....	9 00@ 10 00
Small joists, 2 1/2-12, 14 and 16 long.....	7 00@ 8 50
Large joists, 3-16 long and up.....	9 00@ 9 50
Scantling, 2x3-16 and up.....	7 00@ 8 00

WHITE PINE.	
1st and ad clear, 4-4, 5-4, 6-4 and 8-4.	48 50@ 51 50
3d clear, 4-4, 5-4, 6-4 and 8-4.	43 50@ 44 50
Good edge culms.....	14 50@ 15 00
Good stock.....	17 50@ 18 00

CYPRESS.	
4-4x6, No. 1.....	18 00@ 21 00
4-4x6, No. 2.....	11 00@ 12 00
4-4x6, 16 feet, fencing.....	9 50@ 10 00
4-4x6, rough.....	9 00@ 9 50
4-4 rough edge.....	18 00@ 19 00
No. 1.....	12 00@ 13 00
No. 2.....	29 00@ 31 00
Gulf, 4-4, Nos. 1 and 2.....	31 50@ 32 50
Gulf, 6-4, Nos. 1 and 2.....	31 50@ 32 50

HARDWOODS.	
Cabinet, white and red, plain-sawed and good, 1 and 2, 8 inches and up, 12 to 16 feet long, 4-4.....	29 00@ 33 00
Quartered white, 1 and 2, quality, all figured, 6 inches and up wide, 4-4.....	52 50@ 55 00
Culls.....	10 50@ 15 00
Oak.	
Cabinet, white and red, plain-sawed and good, 1 and 2, 8 inches and up, 12 to 16 feet long, 4-4.....	29 00@ 33 00
Quartered white, 1 and 2, quality, all figured, 6 inches and up wide, 4-4.....	52 50@ 55 00
Culls.....	10 50@ 15 00
Poplars.	
Nos. 1 and 2, 5-8.....	24 00@ 25 00
" 4-4.....	28 00@ 31 50
Nos. 1 and 2, 6 and 8-4.....	32 00@ 33 00
Culls.....	14 50@ 15 50

SHINGLES.	
Cypress, No. 1 hearts, sawed, 6x20.....	7 50@ 7 75
No. 1 saps, sawed, 6x20.....	5 50@ 6 00
No. 1 hearts, shaved, 6x20.....	6 50@ 7 00
No. 1 saps, shaved, 6x20.....	5 00@ —

LATHS.	
White pine.....	2 65@ 2 70
Spruce.....	2 15@ —
Cypress.....	2 15@ —

Norfolk.

[From our own Correspondent.]

NORFOLK, VA., July 31.

The surroundings of the lumber market are not materially changed from those reported a week ago, and the same dull and unsatisfactory conditions are present. At the present low prices for lumber there seems to be no increased demand, and the volume of trade amounts to very little. The mills in the interior are generally running and piling up lumber, and in the city one of the largest plants in the State closed down for an indefinite period. Some of the mills will close down for several weeks for repairs. The receipts of lumber are moderate and shipments are very light. Box grades of lumber have been selling pretty freely, and several large orders have been filed for flooring boards. Arrivals of air-dried yellow pine have been very light during the past week, and good lumber is selling so low that mills are holding on for better prices. The various planing mills and box factories are moderately busy, and have orders on file to keep them busy for some weeks to come. Lumber freights are steady, with a scarcity of handy tonnage, many vessels having been chartered for coal. The rate to New York and sound ports is still quoted at \$2.25 per thousand feet.

Charleston.

[From our own Correspondent.]

CHARLESTON, S. C., July 31.

The market for lumber has been quiet during the past week, and there is no improvement to be noted in the general volume of business. Mills are generally supplied with orders for the present, and prices still hold very low, leaving little or no profit. There is a good demand for crossties from Northern markets at fair prices. The local building demand is reported much more active than usual this summer, and there are quite a number of good substantial stores and dwellings in course of erection. The new hotel, school building and improvements at the Charleston College are among the prominent works in progress. The quotations at the close for lumber are as follows: Merchantable, \$14.00 to \$16.00 for city sawed, \$12.00 to \$14.00 for railroad; square and sound, \$9.00 to \$13.00 for railroad, and \$8.00 to \$11.00 for raft; dock timber, \$4.50 to \$6.50; shipping, \$8.50 to \$10.00. Shingles are in fair demand at \$5.00 to \$7.00 per thousand. The shipments of lumber for the week were 1,680,000 feet and 1288 crossties. The following vessels cleared: Steamer Iroquois, with 64,000 feet; steamer Algonquin, 20,000 feet; schooner J. H. Parker, 400,000 feet, and schooner Geo. R. Congdon, 301,538 feet, all for New York; the schooner Centennial cleared for Philadelphia with 475,000 feet. The total shipments of lumber since September 1, 1893 were 49,185,586 feet coastwise and 2,165,000 feet foreign, and for the corresponding period in 1892-93 the total shipments amounted to 55,879,386 feet.

Savannah.

[From our own Correspondent.]

SAVANNAH, GA., July 31.

Throughout the general lumber market of this section the volume of business is a shade better than usual. The demand is, however, somewhat limited, and mills generally are only moderately well supplied with orders at the moment. There is more activity in building than for some time past, and contractors and builders are looking forward to more building in the next twelve months than has been done in two years. Some fine blocks of handsome residences are in progress of construction,

and the activity consists in the improvement of old properties as well as the erection of new buildings. The shipments of lumber during the past week were as follows: Schooner Julia A. Trubee with 351,425 feet; ship City of Montreal, 16,318 crossties measuring 703,167 feet, and by steamer, 168,000 feet and 102,000 shingles, all for New York; the barkentine Geo. W. Sweeney, for Philadelphia, with 507,912 feet; schooner Wm. H. Allison, for Portland, with 362,000 feet; Baltimore steamers took 69,404 feet, and the steamer for Boston 69,404 feet. The market closes quiet and steady, as follows: Easy sizes, \$10.50; ordinary, \$11.00 to \$14.00; difficult sizes, \$13.50 to \$18.00; flooring boards, \$14.50 to \$22.00, and shipstuffs, \$16.50 to \$25.00. Lumber freights are nominally steady, with a moderate offering of tonnage. The rates from this and nearby ports in Georgia are quoted \$4.00 to \$5.00 for a range including Baltimore and Portland, Me. Steamer rates are quoted \$7.00 to New York and Philadelphia, \$8.00 to Boston and \$4.00 to Baltimore.

JACKSONVILLE.

[From our own Correspondent.]

JACKSONVILLE, FLA., July 30.

The movement in lumber from this port during the current month has been of considerable volume, and the market fairly active, with prices about steady. There has been a fair inquiry from Northern ports, and mills have been well supplied with orders. The L. Bucki & Sons Lumber Co. are cutting 115,000 to 120,000 feet per day, and have shipped since January 14, 500,000 feet of lumber. The company has a yearly contract with the Yellow Pine Lumber Company for its entire output. There is a big stock on hand awaiting the arrival of vessels which have been chartered. All the machinery in the saw mill and planing mill is in active operation, and the capacity of the drying kiln is being fully tested. The schooner John W. Hall cleared on Saturday for New York with 290,000 feet of lumber. The schooner Harold J. McCarthy is loading timber for Boston. The steamer Cherokee cleared for New York with 300,000 feet of lumber and 200,000 shingles, and the Iroquois with 250,000 feet of lumber. The fleet of vessels in port has been considerably decreased during the past week, six vessels having cleared for Northern ports. There are a number of vessels due to load the coming week for New York. Lumber freights continue about steady without material change. The New York charters reported were as follows: A schooner, 358 tons, from this port to Ponce, P. R., at or about \$7.00 and port charges, and a schooner, 219 tons, from Palatka, Fla., to Philadelphia, with dry cypress at \$4.50 and river towage.

Mobile.

[From our own Correspondent.]

MOBILE, ALA., July 31.

A fairly active business in timber and lumber has been transacted during the past week, and the outlook seems more encouraging. Manufacturers and commission men think that the new season will open with a revival in trade, as prices already indicate more firmness in both hewn and sawn timber. European market reports are more favorable, and the demand is somewhat improved, but as yet there is no reduction of any moment in stocks at primary points. The local market for sawn timber is steady at 10½ cents basis, and hewn timber is in fair demand. Logs are rather dull at \$5.00 to \$7.00, according to size and quality. Cypress is steady at 7 to 10 cents per cubic foot. The stocks of timber, logs and cypress are all very small and will soon be cleared up. The steamship Deptford cleared last week for London with 84,154 cubic feet of sawn timber. The situation in lumber is more satisfactory, and the demand is improving.

The ship Margareta cleared for Buenos Ayres with 827,311 feet of lumber, and the Deptford finished her cargo for London with 411,606 feet. The schooner Georgiana cleared for Grand Cayman with 26,000 feet, and the steamer Columbia with 27,000 feet for Bocas del Tora. The schooner Margaret S. Smith took out 15,000 feet for Ruatan. The total shipments for the week amount to 1,806,920 feet, and since September 1, 1893, they aggregate 64,079,560 feet, against 72,872,587 feet for the corresponding period last year. The local building demand for lumber has been quite good during the current month, and considerable material will be absorbed in new building enterprises during the summer and autumn months. The freight market is quiet and steady, and at present rates are not likely to show an advance. The quotations for lumber are as follows: To the West Indies, \$6.50 to \$7.00 per thousand; coastwise, \$5.50 to \$6.00; River Plate, \$12.00 to \$14.00, and Mexico, \$7.50 to \$8.50. Timber to the United Kingdom quoted at 28s. to 30s. per load for hewn, and sawn at £4 12s. 6d. to £4 15s. per standard. A charter was reported in New York of a British bark, 464 tons, from this port to Laguayra at \$8.00 and port charges.

Beaumont.

BEAUMONT, TEXAS, July 27.

The improvement previously noted in the market for lumber and timber has gradually become more decided, and orders from dealers are coming in more freely from all sections of the State, and a fair share from the Territory and Kansas. Although the demand is better, prices do not show any improvement, and millmen are selling for almost any price that is offered. There are only a few timber bills offering. Shingles are somewhat improved in demand, but still move slowly. The Export Company booked an additional cargo of lumber this week to be shipped to an Eastern point. The schooner Martha is now loading at the Pass for Leguna, Mexico. The company is on the lookout for several vessels, and will probably succeed in chartering the proper-sized vessel. The semi-annual meeting of the directors of the Beaumont Lumber Co. and the Nona Mills Co. was held on the 23d inst. No business of special importance was transacted at either meeting. Mr. F. L. Carroll, president of both companies, was present from Waco and presided over the deliberations. The Texas Tram & Lumber Co. finished a bill of 180,000 feet of rift-sawed flooring this week. The material will be shipped by water to New York. At Orange there is considerable improvement in the general conditions of the lumber market, and the month of July will prove to have furnished the largest list of loaded cars of any month since December, 1893. Yard stock is selling more rapidly than bill stuff, and the increase in the demand for the latter is an evidence of more new buildings being constructed. Shipments by water have been limited, only two schooners and one large sloop having sailed this week. Shipments of shingles by rail have held their own this week in point of numbers. The L. Miller Shingle Co. and the A. E. Smith shingle mill are crowding their mills to their full capacity. The A. Gilmer mill, the D. R. Wingate Lumber Co. and the Lutcher & Moore Lumber Co. have all been cutting lumber during the week.

Iron Markets.

CINCINNATI, July 28.

The interruption of the pig-iron traffic by the coal-miners' strike and the senseless railroad strike immediately following were not seriously felt by consumers of pig iron during the prevalence of the strike, as there were supplies in yard and en route, but recently, as stocks in hand have been exhausted and the usual steady supply has

not been at hand to fill the gap, the real trouble is keenly felt and the unhappy consequences of these unreasonable strikes are being realized.

The past fortnight has been the most vexatious we have ever known in filling orders. In endeavoring to hurry shipments and explain to anxious customers the cause of delay we have been diligent, though not as successful as we would have liked. The railroads were far more crippled than they at the time conceded or their management has been bad.

The Southern furnaces, with steadily-increasing supplies of coke, will catch up with their orders, and by the first proximo will be freer for new orders.

The Mahoning and Shenango valley furnaces are still quiet, though some of them expect to have sufficient fuel to start next week.

The protracted difficulties in the Connellsville coke district has been a fortunate opportunity for the Virginia, West Virginia and Kentucky coke companies, which have enjoyed a liberal patronage. They will hold, no doubt, to their full capacities, as in the main their coke seems to give entire satisfaction.

The tariff question is nearing a solution on a compromise basis, and it is likely that ere this report is read a strange creature will have been born, though it will not bear Professor Wilson's name. It will be a relief, however, that the accouplement is accomplished. The country will have an opportunity to get acquainted with the orphan later.

The general trade shows signs of animation. Inquiries are quite numerous and orders more liberal. Indications favor a marked improvement. With the knowledge on the part of buyers that prices of pig iron are approximately cost, any promise of business will prompt purchasing, and as such sentiment and action are contagious, we would not be surprised to see an active business ushered in.

Subject to change, we quote as the market for the moment as follows:

Southern coke No. 1 foundry.....	\$10 250	\$10 50
South. coke No. 2 fdry, and No. 1 soft	9 500	9 75
Hanging Rock coke No. 1.....	12 000	12 50
Hanging Rock charcoal No. 1.....	16 000	17 00
Tennessee charcoal No. 1.....	14 000	14 50
Jackson county stone coal No. 1.....	14 500	16 00
Southern coke, gray forge.....	8 750	9 00
Southern coke, mottled.....	8 500	8 75
Standard Alabama car-wheel.....	16 250	17 25
Tennessee car-wheel.....	15 500	16 00
Lake Superior car-wheel.....	16 000	16 50

We quote for cash f. o. b. Philadelphia docks:

Standard Alabama No. 1 X.....	\$11 500	\$12 00
Standard Alabama No. 2 X.....	10 500	11 00
Strong lake ore coke iron No. 1 X.....	13 500	14 00
Strong lake ore coke iron No. 2 X.....	12 500	13 00
Lake Superior charcoal.....	15 750	16 25
Standard Alabama C. C. C. W.....	18 000	18 50

NEW YORK, July 28.

The business of the week has shown slight improvements in tonnage and also in inquiries.

The inability of Southern furnaces to fill orders for soft grades has occasioned many consumers trouble and diverted some trading for the time being back into old Northern channels, but the hindering strikes have been overcome, and an adequate supply of iron will now be forthcoming.

There is no improvement in prices beyond those enforced by the advanced all-rail freight rates. The Northern Railroad and Steamship Association, in its meeting at Manhattan Beach on the 21st inst., decided to restore the old tariff on August 1, which must result in advancing prices on Southern iron to Eastern seaboard points.

We quote for cash f. o. b. New York:

No. 1 foundry lake ore coke iron.....	\$13 500	\$14 00
No. 2 foundry lake ore coke iron.....	12 500	13 00
No. 1 American-Scotch.....	13 500	14 00
No. 2 American-Scotch.....	13 000	13 50
No. 1 standard Southern.....	11 500	12 00
No. 2 standard Southern.....	11 000	11 50
No. 1 standard Southern soft.....	11 000	11 50
Standard Southern car-wheel.....	18 250	18 75

ROGERS, BROWN & CO.

THE Bartow Phosphate Co., of Bartow, Fla., is preparing to increase its capacity to 300 tons a day.

Southern Exchange Association Membership.

The MANUFACTURERS' RECORD publishes below the form of application for the associate membership in the Southern Exchange Association. Any person or concern desiring to become an associate member will sign the subjoined form and return it to the association direct or to the chairman of his State advisory board accompanied by the annual dues for the first year, \$5.00.

The Southern Exchange Association is the outgrowth of the meeting of Northern and Southern business men, recently held at the Fifth Avenue Hotel, New York. Its proceedings, as well as the work of the committee on permanent organization, have already been detailed. The association derives the income necessary for its work from registration fees, membership dues and voluntary subscriptions. It deserves an associate membership of not less than 25,000 made up from the country at large. The associate members shall have the right to consult the registry of information kept at the office of the association, and to receive all publications and reports issued by said association.

SOUTHERN EXCHANGE ASSOCIATION. MEMBERS.

Alabama—H. M. Caldwell.
Arkansas—Clifton R. Breckinridge.
Florida—D. H. Elliott.
Georgia—D. B. Dyer.
Kentucky—R. H. Courtney.
Louisiana—Harry Allen.
Maryland—R. H. Edmonds.
Mississippi—Wm. G. Verger.
Missouri—Jerome Hill.
North Carolina—Julian S. Carr.
South Carolina—Alexander C. Haskell.
Tennessee—I. F. Peters.
Texas—Walter Gresham.
Virginia—John Skelton Williams.
West Virginia—A. B. Fleming.
District of Columbia—Boyd Smith.

At Large.

Jonathan A. Lane, Boston, Mass.
Aretas Blood, New Hampshire.
Russell A. Alger, Detroit, Mich.
Theodore Frelinghuysen, New Jersey.
J. Willcox Brown, Baltimore, Md.
Thos. K. Worthington, Baltimore, Md.
Clinton Furbish, Washington, D. C.
Hamilton Disston, Philadelphia, Pa.
Clarence Clark, Philadelphia, Pa.
William McAdoo, Assistant Secretary of the Navy.

Abram S. Hewitt, New York city.
Chauncey M. Depew, New York city.
William R. Grace, New York city.
Henry M. Flager, New York city.
Henry B. Plant, New York city.
John H. Inman, New York city.
Stuyvesant Fish, New York city.
James Swann, New York city.
Samuel M. Jarvis, New York city.
Thomas P. Grasty, Kentucky.
Hugh R. Garden, New York city.
Walter Stanton, New York city.
Charles A. Deshon, New York city.
William G. Maxwell, New York city.
R. Wayne Wilson, New York city.
Atwood Violett, New York city.
George H. Sullivan, New York city.

(Application form.)

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To the Southern Exchange Association,
23 Park Row, New York city:
..... hereby make application for registration as associate member....of your association, and herewith enclose the sum of five dollars, being the first year's dues.

Please mail certificate of membership to
Name.....
Street.....
City or P. O.....
State.....
REFERENCES.
(Two or more citizens.)
.....

CONSTRUCTION DEPARTMENT.

WE PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad under-construction, and every mining company organized. This information is always fresh and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.

*Means machinery is wanted, particulars of which will be found under the head of "Machinery Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ALABAMA.

Arbacochee—Gold Mine.—D. W. Vaughn, of Heflin, has commenced the development of the Price gold mine, near Arbacochee.

New Decatur—Tannery.—J. E. Mooney, of Cincinnati, Ohio, and associates will establish at New Decatur a tannery for working 300 hides daily, and in a couple of years 500 or more men will be at work.

Selma—Water Works.—The Selma Water Co. will enlarge its plant, as reported last week; will put in a 3,000,000-gallon duplex pump and a Pohle air-lift pump.

ARKANSAS.

Fort Smith—Cotton Compress.—The Fort Smith Compress Co. has been incorporated with a capital stock of \$50,000. Geo. T. Sparks, president; Julius Lesser, vice-president, and John Vaite, secretary-treasurer.

Helena—Electric-light Plant.—The Helena Gas Co. is putting in an electric-light plant.

FLORIDA.

Avon Park—Lumber Mill.—J. C. Burleigh will add new machinery to the lumber plant of which he is manager.

Bartow—Phosphate Mines.—The Bartow Phosphate Co. will increase the daily capacity of its mines.

Bonifay—Canning Factory.—A stock company has been organized to establish a canning plant. W. R. Miller can be addressed.*

Jacksonville—Shoe Factory.—W. N. and George Emery, operating as the Emery Shoe Co. will start the shoe factory noted last week.

Key West—Water Works.—A Mr. Cleaves, civil engineer of New York, has been engaged to prepare plans for the city's proposed water works.

Silver Springs—Irrigating Plant.—Andrew Maug has built an irrigating plant at Silver Springs Park.

Yallah—Guava Factory.—John James contemplates establishing a factory to work guavas.

GEORGIA.

Augusta—Cotton Mills.—The Globe Cotton Mills will put in forty-eight looms and other machinery and generally overhaul its plant.

Columbus—Clothing Factory.—J. Kyle & Co., manufacturers of pants and overshirts, are enlarging their factory.

Savannah—Lumber Plant.—Meritt W. Dixon and Henry Mitchell have purchased the Dale, Dixon & Co. lumber plant, and will operate it.

Savannah—Turpentine Operators, etc.—The Turpentine Operators' Protective Association has been incorporated by Albert Prudgen, D. T. Dougherty and others with a capital stock of \$10,000.

Sylvester—Saw Mill.—Wright & Weslasky, of Albany, have purchased Bull & Greene's saw mill.

Toccoa—Cotton Mill.—A plan is afoot for the erection of a \$200,000 cotton mill. R. D. Yow, of Avalon, can be addressed.

KENTUCKY.

Shelbyville—Water Works.—Contracts have been awarded for the machinery for the city's new water works.

LOUISIANA.

Monroe—Cotton Mill.—A movement is on foot for the removal to Monroe of the Henrietta Cotton Mills, of Washington. A \$50,000 stock company is proposed. Address J. P. Jacobs and P. Russell, of Washington.

Monroe—Dry-kiln.—The Benoit Lumber Co. will put in a dry-kiln at its plant near Monroe later on.

New Orleans—Paper-box Factory.—R. L. Burnet, of Dallas, Texas, contemplates establishing in New Orleans the largest paper-box factory in the South.

MARYLAND.

Baltimore—Ice Company.—Owing to a rise in the price of ice, it is said that a new \$100,000 stock company will be formed to supply the city. Major N. S. Hill can be addressed.

Baltimore—Iron Works, etc.—The Baltimore Dry-Dock Co. and the Columbian Iron Works is to expand more than \$85,000 in rebuilding that portion of their plant which was burned recently.

Baltimore—Manufacturing.—G. W. Gail, Wm. H. Beehler, Chas. B. Beehler, Ernest Schmeisser and G. W. Gail, Jr., have incorporated the Beehler Solarometer Co. to manufacture and sell a nautical astronomical instrument. The capital stock is \$100,000.

Conowingo—Paper Mill.—The Susquehanna Water Power & Paper Co. is erecting an addition to its paper mill, and will put in machinery for stamping wall paper.

Eikton—Canning Factory.—McGraw & Smith are enlarging their canning factory.

Gaithersburg—Telephone Line.—The Montgomery County Telephone Co. will extend its telephone line to Rockville, a distance of five miles.

Hagerstown—Fire-alarm System.—The city will construct a fire-alarm system. The Gamewell has been decided on. Address the mayor.

Hazen—Tannery.—Chas. J. Stowers, Jno. H. Leasure, Martin L. Dicken, DeW. H. Reynolds and Wm. K. Tully have incorporated the Hazen Tanning Co. with a capital stock of \$15,000. The Bottle Run tannery, idle for over a year, has been purchased by the company, and will at once be started to work.

Lamotte—Canning Plant.—H. F. Lamotte has recently put considerable new machinery in his canning plant.

Salisbury—Overall Factory.—Baltimore capitalists will erect an overall factory to employ 100 operatives and use seventy-five machines operated by steam-power. The Board of Trade can be addressed.

The Rocks—Stone Quarries.—Hugh Jones, of Baltimore, has purchased the Rocks of Deer Creek property, including stone quarries.

MISSISSIPPI.

Brookhaven—Telephone Line.—A stock company may be formed to construct a telephone line from Brookhaven to Fair River to Monticello.

Leland—Drugs, etc.—W. T. Stovall, V. Long and E. F. Turner have incorporated the Leland Drug Co. with a capital stock of \$2000 to conduct a drug business.

Meridian—Cottonseed-oil Mill.—E. Cahn, Frank P. Rice and M. E. Cahn have incorporated the Eagle Cotton Oil Co. to manufacture oil from cottonseed, etc., and the capital stock is placed at \$50,000. This company is to operate the plant now being built by E. Cahn, and noted some weeks ago.

MISSOURI.

Bethany—Electric-light and Water Works.—The city has let contract to the Franklin Electric Co., of Kansas City, for the erection of the water and electric-light works lately noted.

Independence—Investment.—Wm. T. Hearne and others have incorporated the W. T. Hearne Investment Co. with a capital stock of \$20,000.

Kansas City—Mercantile.—Bernard Liebstdtder and others have incorporated the Liebstdtder Millinery Co. with a capital stock of \$45,000.

St. Louis—Oil Company.—The Brilliant Hard Oil Polish Co. has been incorporated with a capital stock of \$500,000.

St. Louis—Real Estate, etc.—Theodore Rick and others have incorporated the Theodore Rick Real Estate & Investment Co. with a capital stock of \$20,000.

NORTH CAROLINA.

Brown's Summit—Flour Mill.—Contract has been awarded for putting new roller-process outfit in C. R. Doggett's flour mill.

Gaston—Bridge.—Sealed bids will be received until August 6 for building a large bridge at Armstrong's Ford. Address John O. Rankin.

Henderson—Supplies.—D. V. Cooper, E. G. Barnes, A. C. Zollicoffer and A. Cooke have incorporated the Henderson Supply Co.

Jacksonville—Saw Mill.—The Parmele-Eccleston

Lumber Co. will rebuild its saw mill lately badly damaged by boiler explosion. Company's saw mill runs day and night, working forty-two men on each shift, and its planing mill runs in daytime, working sixty men.*

Louisburg—Cotton Mill.—The erection of a cotton mill is contemplated, and G. W. Ford can be addressed for information.

Madison—Flour Mill.—Kallam & Simpson have let contract for the installing of a new roller process in their flour mill.

Monroeton—Flour Mill.—Rankin & Griffith are remodeling their flour mill; contract awarded.

Siloam—Tobacco Works.—G. L. Matthews is putting in tobacco works.

SOUTH CAROLINA.

Bath—Bleachery.—Chas. Estes, of Augusta, Ga., has been conferring during the week with J. M. Odell, of Concord, N. C., regarding the erection of a bleachery at Bath.

Florence—Land, etc.—Jerome P. Chase and others have incorporated the Chase Land & Improvement Co. with a capital stock of \$20,000.

Greenwood—Publishing.—The Greenwood Publishing Co. has been organized recently to publish a newspaper. R. B. Wilson is manager.

Greenwood—Cotton Mill.—A report says the Greenwood Cotton Mill will be enlarged.

TENNESSEE.

Chattanooga—Chewing-gum Factory.—The Chattanooga Medicine Co. has equipped a plant for the manufacture of chewing gum and commenced operations.

Erwin—Lumber Plant, Timber Lands, etc.—Geo. D. Miles and associates, recently noted as having purchased large tracts of timber land near Erwin, are preparing to erect a lumber plant to cut the timber. A. S. Whitman, of Chicago, Ill., is president; Geo. D. Miles, of Big Rapids, Mich., vice-president and superintendent; C. H. Werden, of Merrill, Wis., secretary and general manager, and Jno. E. Norton, of Chicago, treasurer; capital stock placed at \$300,000.

Greeneville—Butter and Cheese Factory.—A stock company has been formed to establish a butter and cheese factory. G. M. Smith is chairman and Jno. Landstreet, secretary.

Jackson—Foundry and Machine Works.—Mr. Lynn, of Chicago, contemplates starting foundry and machine shops in Jackson. Address the Board of Trade.

TEXAS.

Beaumont—Water Supply.—It is contemplated to sink artesian wells in Beaumont. Gus Warnecke and H. B. Johnson, of Houston, are interested.

Fort Worth—Cheese Factory.—J. C. Martin is corresponding with Wisconsin parties relative to establishing a cheese factory.

Fort Worth—Meal Mill.—H. E. Hawk, of Cleveland, Ohio, contemplates erecting an oatmeal mill in Fort Worth.

Hico—Mill and Gin.—Weiser & Co. are making improvements to their flour mill and cotton gin.

Merkel—Cotton Gins.—Henslee & Blanchard are putting in two additional 70-saw gin stands.

Merkel—Cotton Gins.—George Brown is equipping his gin with three new 70-saw gin stands and complete Munger system.

Mifflord—Cotton Gin.—G. W. Williams has put new machinery in his cotton gin.

Nash—Cotton Gin.—J. W. Lumpkin and others have incorporated the Nash Gin Co. with a capital stock of \$5000.

Rockdale—Coal Mines.—R. H. Hicks, Leonard Isaacs, J. L. Lockett and W. B. Moody, of Rockdale, and A. B. Kerr, of Flatonia, have incorporated the Rockdale Coal Co. with a capital stock of \$30,000.

Rockdale—Cottonseed-oil Mill.—The Rockdale Cottonseed Oil Co. will increase the capacity of its oil mill.

San Angelo—Knitting Mill.—Leon Halpin is endeavoring to organize a company to establish a \$20,000 knitting mill. He will try to interest Galveston parties.

San Antonio—Telephone.—R. F. Alexander, O. B. Lowe, W. W. McClure, A. N. Callaway, John Serdinko and others have incorporated the National Union Telephone Co. with a capital stock of \$50,000.

San Antonio—Increase Capital.—The Sunset Wood Co. has increased its capital stock \$20,000.

Terrell—Electric-light Plant.—The Texas Midland Railroad Co. has put in an electric-light plant.

Wichita Falls—Electric-light and Water Works.—The Consolidated Engineering Co., of St. Louis, Mo., A. C. Einstein, president and treasurer, will

build an electric-light plant and water-works system; franchise was secured recently.

VIRGINIA.

Alexandria—Woodenware Plant, etc.—The Potomac Manufacturing Co., noted several days ago as incorporated, is now erecting buildings for its plant, and expects to employ 200 men when in operation. Operations will be conducted on a co-operative basis. Foundry will also be put in. Machinery will soon be purchased. R. K. Cooke, of Washington, D. C., is secretary.

Lynchburg—Implement Works.—A company is to be formed for the purpose of manufacturing agricultural implements, wagon skein, farm bells, iron fences, etc. Address the Virginia Foundry Co., P. O. Box 72.*

Mendota—Flour Mill.—Frank M. Barker contemplates remodeling his flour mill to the roller process.*

Norfolk—Box Works.—A charter has been granted to the Norfolk Packing Box Co. with a capital stock of \$10,000. W. H. M. Reed is president.

Norfolk—Ink Company.—The Williams Ink Co. has been chartered with a capital stock of \$25,000. J. V. Williams is president, and O. W. Badger, secretary-treasurer.

Norfolk—Manufacturing, etc.—F. L. Slade & Co. have incorporated to deal in and manufacture supplies, etc. J. C. Croner is president; J. S. Rogers, vice-president, and F. L. Slade, secretary-treasurer; capital stock \$25,000.

Norfolk—Woodworking Plant.—Frank Corcoran, of Mexico, N. Y., said to be the largest manufacturer of butter plates and berry boxes in the East, states that he intends to remove his plant to Virginia, probably Norfolk or Petersburg, and he is now investigating for location.

Roanoke—Tobacco Factory.—The Eliason & Nicholson Tobacco Co. has lately been organized and equipped a tobacco factory.

WEST VIRGINIA.

Huntington—Printing Plant.—J. G. Dowtain & Son have purchased Charles Cargo's complete printing plant and bindery.

Keyser—Steam Laundry.—A new steam laundry will be equipped in Keyser. George E. Wells can give information.

Moundsville—Water Works.—Contract to construct and complete the water works at Moundsville has been let to Charles Raper, of Bellaire, Ohio.

Wheeling—Tinplate Works.—The Whitaker Iron Works will engage in the manufacture of plate to be coated with tin by the Wheeling Corrugating Co.

BURNED.

Brittian, W. Va.—Theodore Bush's saw mill.

Nashville, Ark.—Wormack & Son's lumber plant; loss \$10,000.

Rockingham, N. C.—The Ledbetter Manufacturing Co.'s cotton mill; loss about \$30,000.

Tampa, Fla.—The Tampa Lumber Co.'s mill; loss \$25,000.

BUILDING NOTES.

Atlanta, Ga.—Exposition Buildings.—The date for deciding on plans for the exposition buildings has been changed from August 15 to September 1. Grant Wilkins, chairman of committee.

Atlanta, Ga.—Marion Thrower will erect a five-story building.

Baltimore, Md.—Residence.—R. B. Tippett will erect a residence to cost \$8000. Alexander McCabbin has prepared plans.

Baltimore, Md.—Warehouses.—James D. Mason & Co. will expend \$20,000 in improving their warehouse annex.

Berkeley Springs, W. Va.—Hotel.—E. G. Pendleton, of Washington, D. C., will erect a \$75,000 hotel at Berkeley Springs.

Birmingham, Ala.—Residence.—J. E. Lamb will erect a residence to cost \$5000. F. W. Mowbray, of Louisville, Ky., prepared the plans.

Cleburne, Texas—Depot.—The Gulf, Colorado & Santa Fe Railroad Co. (office, Galveston) will build a depot to cost \$5000.

Cleveland, Ga.—School.—A school building may be erected. C. Crespo can be addressed.

Crawfordsville, Fla.—Hotel.—W. W. Walker and W. C. Tulley, of Tallahassee, are reported as to erect a hotel on Dickinson bay, ten miles south of Crawfordsville.

Galveston, Texas—Orphanage.—Bids are about to be advertised for the erection of a new \$50,000

orphanage for the Protestant and Israelitish Orphans' Home. Address C. W. Preston.

Holland, Texas—School.—The city will erect a school building to cost \$3000.

Houston, Texas—Dwellings.—J. H. Burnet has obtained permit to erect five two story dwellings to cost \$15,000.

Kansas City, Mo.—Warehouse.—The Wm. J. Lemp Brewing Co. will erect a large brick warehouse; site has been purchased for \$8500.

Knoxville, Tenn.—Residence.—M. S. Little will build a brick residence to cost \$20,000.

Louisville, Ky.—Church.—The congregation of St. Paul's Church intends to erect a new structure at a cost of about \$50,000.

Louisville, Ky.—Flats.—C. S. Kellar has prepared plans for a drug store and flats to be erected at a cost of \$6000.

Marlin, Texas.—Contract.—The Marlin Oil Co. has let contract for the erection of a building at Thier lake.

Portsmouth, Va.—Depot.—Contract for building the Seaboard Air Line's new union depot has been let to John P. Pettyjohn & Co., of Lynchburg.

Rockdale, Texas—City Hall.—The city contemplates erecting a new city-hall building. Address the mayor.

San Antonio, Texas.—E. B. Chandler has obtained permit for the erection of a brick and stone building to cost \$10,000.

Savannah, Ga.—Temple.—The Masons are contemplating the erection of a new temple.

Shreveport, La.—Cathedral.—The Roman Catholics will erect a cathedral, plans for which have been prepared in France. Freret & Sons, architects, have charge of the plans.

Sistersville, W. Va.—Church.—The Baptists will erect a new church building to cost \$4000.

St. Louis, Mo.—Flats.—J. H. Debay will build four flats to cost \$6000; Kellogg & Son prepared plans.

Sudbrook Park, Md.—Church.—Contract has been let to Philip M. Watts, of Pikesville, for the erection of a church building opposite Sudbrook Park.

Washington, D. C.—Church.—A permit has been issued to the People's Congregational Church for the erection of a new building to cost \$15,000; Frank N. Carver has contract.

Washington, D. C.—Dwellings, etc.—J. E. Chapman will build four residences at a cost of \$30,000; J. M. Dunn has contract; George Truesdell will rebuild the Eckington Hotel; Wm. C. Morrison has contract; F. M. Carver has contract to build a one story and basement brick church to cost \$15,000; Meyer Loeb has obtained permit to build a brick store and dwelling to cost \$16,500; John Rochon has let contract for erection of a brick store to cost \$8000; Geo. H. Smith has let contract for erection of a residence to cost \$31,000; Henry Willard has contract to erect a brick apartment-house to cost \$20,000.

RAILROAD CONSTRUCTION.

Railroads.

Clendennin, W. Va.—W. S. Lewis, of the Clendennin & Spencer Railroad Co., lately referred to, writes that the company is chartered and is now building its road. The line is projected from Clendennin to Spencerville.

Corsicana, Texas.—C. W. Cuykendall, president of the Corsicana & Southeastern Railroad, writes that contract for building his road has been awarded to M. C. Hurley & Co., of Fort Worth. Work is expected to begin by August 1. The final surveys are now being made.

Georgetown, Texas.—P. Kelly, representing himself and others, has submitted a proposition to the stockholders of the Georgetown & Granger Railroad for the construction of that line. Mr. Kelly offers to build, equip and operate the road on condition that the stock of the company be transferred to himself and associates ten days after trains begin running. Work is to begin January 1, 1895, and be completed within twelve months. The route of the Georgetown & Granger Railroad, which is fifteen miles long, is graded ready for crossties, iron and bridges.

Graham, Ark.—The W. and T. & Southeastern Railway Co. is building its road from Graham to Sheridan, and will build a line from Graham to Malvern. The purpose of the company is to have a road extending from W. and T. to Pine Bluff.

Marion, Ala.—The extension of the Mobile & Birmingham Railroad (office, Mobile) from Marion Junction to Birmingham is being agitated.

Moss Point, Miss.—It is contemplated to build a six-mile standard gage railroad between Moss Point and Pascagoula, Miss. C. P. Hammond, Americus, Ga., can be addressed.

Norfolk, Va.—It is expected that the work of rebuilding bridges and otherwise improving the Atlantic & Danville Railroad will soon begin. Benjamin Newgass can give particulars.

Ocala, Fla.—The building of a railroad from Ocala via Silver Springs Park to Silver Springs, a distance of eight miles, is proposed.

Pensacola, Fla.—It is stated that the Pensacola & Northwestern Railroad Co. will soon be ready

to locate its proposed railroad. S. N. Van Praag, of Pensacola, can give information.

Rusk, Texas.—Two miles of additional track will be laid on the State Railroad. The road is eight miles long and is located to the Neches river.

San Antonio, Texas.—S. Massey & Co., contractors for the construction of the San Antonio & Gulf Shore Railroad, have thrown up their work, and the building of the road is now under the direction of William Davis, president of the company. Construction work is to be pushed.

Spanish Fort, Texas.—The Arkansas, Texas & Mexican Central Railway Co. has been incorporated by J. C. Weaver, J. F. Clark and others, of Fort Worth; A. J. Malvertton and J. A. Bivens, of Ardmore, I. T. The purpose of the company is to build a railroad from Spanish Fort in a southwesterly direction to a point near Abilene, 150 miles distant. The capital stock is \$150,000.

Victoria, La.—The Robeline & Sabine Pass Railroad Co. has signed contracts for extending its road from Victoria to Many. John R. Jones is president and can give information.

Weatherford, Texas.—A movement has been started for the extension of the Weatherford, Mineral Wells & Northwestern Railroad to Hasell via Graham.

Westlake, La.—Lock, Moore & Co., managing owners of the Calcasieu, Vernon & Shreveport Railroad, write that they have let contract for additional construction of that road from the Houston river to Lockport and Westlake.

Yallaha, Fla.—W. E. Simmons is building a railroad.

Electric Railways.

Chevy Chase, Md.—The Chevy Chase & Kensington Railroad Co. has been organized to build an electrical railroad from the present terminus of the Rock Creek Railway to Kensington. Oliver R. Harr is president; Alfred Ray, vice-president, and W. H. Walker, secretary.

Columbus, Ga.—The Columbus Railroad Co., operating dummy and horse-car lines, will, it is expected, soon take steps for changing to electric power.

Columbus, Ga.—The North Highlands Railroad Co. has been granted a liberal franchise for the extension of its line, and engineers are now at work surveying the route.

Greenville, Texas.—The city has granted a franchise for an electrical railroad. The mayor can give particulars.

Key West, Fla.—John J. Philbrick and others have been granted a franchise to construct an electrical railroad. The street railway company of which E. H. Gato is president also contemplates building an electrical railroad.

New Orleans, La.—City Engineer Brown has completed specifications for the work necessary to be done to change the lines of the St. Charles Street Railroad Co. to electricity.

Pikesville, Md.—The franchises of the Randallstown, Harrisonville & Granite Road Transit Co. will be secured by Northern parties. The company is formed to build an electrical railroad from Pikesville to Randallstown. It has been decided to use the Barrows system, invented by C. H. Barrows, of Willimantic, Conn., in building the line. This system employs only one rail, and is being introduced by the parties who have obtained control of this company. James T. Floyd, of Baltimore, agent for the system, arranged the deal.

Westminster, Md.—The Westminster & Union Mills Electric Railway Co. will be chartered by T. Herbert Shriner, of Union Mills; Charles E. Stewart, W. B. Thomas and others, of Westminster, and Frank Brown, of Baltimore, president of the Baltimore Traction Co. The new company is organized in furtherance of the plans of the Baltimore Traction Co. to build an electrical railroad from Baltimore to Gettysburg, Pa. The new company is to start its road at Westminster, where it connects with the line to be built by the extension of the Baltimore & Pikesville branch of the Traction Company from Pikesville to Westminster. The new road runs from Westminster to Union Mills, where it will connect with the Gettysburg Battlefield Electric Railway, which, according to the announced plan, is to be built to that point.

Cable Line.

Washington, D. C.—The Columbia Railway Co. has awarded contract to Edward Saxton for constructing its cable line on New York avenue and H street.

Steel Vinduct.

Augusta, Ga.—Contract for building the new steel viaduct over the Tiger river near Moores for the Fort Royal & Western Carolina Railroad has been awarded to Grant Wilkins, of Atlanta. The viaduct will be ninety feet high and 600 feet long, and will cost about \$18,000.

A UNIQUE conceit is being sent to emery-wheel users by Mr. Ross C. King, representing the New York Belting & Packing Co., Limited, 15 Park Row, New York. It is in the shape of an advance notice to his trade. It reads as follows: "Are you on the grind? I'll be on the ground with the valcanite emery wheel, fast and safe."

MACHINERY WANTED.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.

Belting.—The B. F. Blakeny Co., England, Ark., will need belting.

Boiler.—Kendall & Flick want a 125 horse-power locomotive boiler on skids; also stack and trimmings. Address J. B. Kendall, Washington, D. C.

Boilers.—The Parmelee-Eccleston Lumber Co., Jacksonville, N. C., will need three 100 horse-power boilers.

Boiler and Engine.—J. D. Cobb, Kew, Ark., wants a twenty horse-power boiler and engine.

Bolting Machine.—X, 512, Sun Office, Baltimore, Md., wants to buy a small bolting machine. State dimensions and lowest cash price.

Cars.—The Atlanta Chert Paving Co., Atlanta, Ga., wants second-hand tram cars.

Canning Machinery.—W. R. Miller, Bonifay, Fla., will be in the market for a canning plant.

Cement.—Sealed proposals will be received until August 6 for furnishing about 12,000 barrels of cement to the city of Atlanta, Ga. Address David G. Wyllie.

Chair Machinery.—J. W. Webb, Union Springs, Ala., wants prices on machinery for making plain or cheap chairs.

Cotton Gin, etc.—J. D. Cobb, Kew, Ark., wants an 80 saw gin, feeder, condenser, press, etc.

Cotton Gin, etc.—The B. F. Blakeny Co., England, Ark., will need 80-saw gin, feeder, condenser, press, etc.

Electric Bells.—W. T. Hughes & Co., Louisville, N. C., want offers for electric-bell system.

Elevators.—Warehouse, 685, Sun Office, Baltimore, Md., wants two Bates second-hand elevators.

Engine.—The Enochs Lumber & Manufacturing Co., Jackson, Miss., wants to buy a Corliss engine 14x16 inches diameter (second hand in good condition) will do.

Feed-water Heaters.—J. H. Walker & Co., Reidsville, N. C., want a feed-water heater sufficient for two sixty horse power boilers, and not 120 horse-power boilers, as was stated in this column last week, new or second-hand.

Flour-mill Machinery.—Frank M. Barker, Mendota, Va., will probably want roller process flour-mill machinery next winter.

Fly wheel.—G. M. Davis & Son, Palatka, Fla., wants a 150 pound fly-wheel thirty six inches in diameter, one and eleven-sixteenths bore.

Furnaces.—The Tanners & Dyers' Extract Co., Charleston, W. Va., wants furnaces for burning wet tan bark.

Grist Mill.—The B. F. Blakeny Co., England, Ark., will need grist mill.

Hosiery Machinery.—M. I. Hook, Trenton, S. C., wants to correspond with manufacturers of the latest improved hosiery machinery.

Hulling Machinery.—The B. F. Blakeny Co., England, Ark., wants cottonseed hullers.

Ice Machine.—A. A. McCorkle, Lock Box 44, Shelbyville, Tenn., wants estimates on a five to eight-ton ice machine, new or second-hand.

Implements.—The Atlanta Chert Paving Co., Atlanta, Ga., wants wheelbarrows, picks, shovels, etc.

Implement Machinery.—The Virginia Foundry Co., P. O. Box 72, Lynchburg, Va., wants catalogues and prices of machinery for making agricultural implements.

Knitting Machine.—C. H. Scott, Warrenton, N. C., wants a hand stocking knitting machine, or light power machines for general knitting work.

Locomotive and Cars.—Quotations are wanted on locomotives and coaches. Address C. P. Hammond, engineer, Americus, Ga.

Match Machinery.—L. P. Harper, Suffolk, Va., wants prices on machinery for manufacturing matches.

Mortiser.—G. M. Davis & Son, Palatka, Fla., want a foot mortiser (second-hand) will do.

Pencil Machinery.—Warner, Moore & Co., Richmond, Va., want a machine to cut a pencil about seven-eighths inch diameter out of soft material about the same consistency as chalk.

Pump.—J. H. Walker & Co., Reidsville, N. C.,

want a double plunger steam pump to supply feed-water heater for two 60-horse-power boilers, and not 120-horse-power boilers, as was stated in this column last week.

Pumps.—F. Russek, Skidmore, Texas, wants irrigation plant to pump water out of wells fifteen to twenty feet.

Punch.—Mott Barton, Henderson, W. Va., will need a power boiler punch (second hand).

Punch and Shears.—G. M. Davis & Son, Palatka, Fla., want a hand combined punch and shears.

Rails.—Quotations are wanted on about six miles of 40 to 50-pound steel or iron rails, new or relay. Address C. P. Hammond, engineer, Americus, Ga.

Rails.—The Atlanta Chert Paving Co., No. 2 South Broad street, Atlanta, Ga., wants to buy second-hand rails.

Rails.—The Clear Springs Phosphate Co., Room 318, Bissell Block, Pittsburgh, Pa., wants quotations on 40 or 45-pound relay steel T rails for about two miles of road delivered at Bartow, Fla.

Roofing.—J. D. Cobb, Kew, Ark., wants roofing.

Roofing.—The B. F. Blakeny Co., England, Ark., will need roofing.

Roofing.—The Parmelee-Eccleston Lumber Co., Jacksonville, N. C., will need about 1200 squares of iron roofing.

Saw.—Frank M. Barker, Mendota, Va., wants a 30-top saw, 8x10 gauge.

Saw-mill Carriage, etc.—The Parmelee-Eccleston Lumber Co., Jacksonville, N. C., will need saw-mill carriage, steam feed, transfer chains, sprocket wheels, gears, etc.

Stoneworking Machinery.—Henry M. Sciple, Bordentown, N. J., wants machinery for cutting and planing a soft stone similar to sandstone; also wants machinery for the complete working of onyx.

Surveying Apparatus.—J. W. Taylor, 21 South Forsyth street, Atlanta, Ga., wants a good second-hand field level and rod.

Tobacco Machinery.—The Moross-Goad Tobacco Co., Chattanooga, Tenn., wants prices on smoking-tobacco machinery.

Typewriter.—W. H. Clark, Stuart, Va., wants to buy a second-hand Remington typewriter in good repair.

Water Works.—The Aberdeen Water & Power Co., Aberdeen, Md., will receive sealed proposals until August 15 for the construction of water works. See advertisement in MANUFACTURERS' RECORD of August 3.

Wind-mill.—S. C. Penn, Reidsville, N. C., wants to buy a wind-mill.

Woodworking Machinery.—The Monroe Lumber Co., Monroe, La., wants a picket machine.

Mr. Jno. Guitart, Jr., of Jefferson, Texas, wants to know how much oil, or as to what per cent. of oil to the net weight of meats, can be gotten out of peanuts with the most modern machinery, and as to what variety of the different peanuts makes the largest per cent. of oil, and what is the average yield of nuts per acre of ground; also wants to know how to make a chemical test of same.

TRADE NOTES.

THE John B. Stetson Co., of Philadelphia, Pa., is introducing the Aerophor system of air-moistening.

MILTON F. WILLIAMS & CO., contractors and manufacturers, of St. Louis, Mo., recently installed the following machinery at Rome, Ga.: Forty-inch clay pulverizer, capacity 60,000 bricks; clay elevator, screen feeder and mixer combined for feeding dry press, automatic feeder for pulverizer, brick trucks and barrows, clay cultivator, clay buncher and a supply of pulleys and shafting.

MR. W. D. MCNAULL, of Ronceverte, W. Va., patentee and manufacturer of economic water-tube boilers, radial drills, etc., has recently shipped one of his six inch universal radial drills to the Smith-Courtney Co., of Richmond, Va., and one of his fifty horse-power economic water-tube boilers to A. G. Williams & Co., of Frankfort, W. Va. These machines are giving excellent satisfaction.

PERSONS contemplating engaging in manufacturing of any kind may find a desirable opportunity in the card of J. F. Cleghorn, of Clinton, Wis., to be seen in another column. A manufacturing plant, embracing two acres of land, located in a northeast Georgia town, is offered for sale. The property includes a two-story building, 40x150 feet, sixty horse power boiler and engine and fourteen woodworking machines.

A MODEL ice plant at Columbus, Ga., has lately commenced operations with an unusual patronage. The plant was erected by the Golden Foundry & Machine Co., which has achieved a high reputation for its ice machinery, and is one of the progressive industrial institutions of the South. This concern is about to complete a 15-ton ice plant to go to Mobile, Ala., and its resources

will no doubt be taxed to supply the demand occasioned by the success and popularity of its machinery.

"RUNNING thirteen hours per day in all of our departments and are as busy or busier than we have been for years past" is the way bad times hits the Buckeye Iron & Brass Works, Dayton, Ohio. Of course, the well-known popularity of this concern's products explains this activity. It makes a specialty of linseed and cottonseed-oil machinery, and as well manufactures tobacco-cutting machinery and brass goods for engine-builders, steam and water fitters.

MR. JAMES BATES, the well-known manufacturer of elevators, 1, 3 and 5 President street, Baltimore, has closed a contract with the Wilcox & Gibbs Guano Co., of Savannah, Ga., for three hydraulic and one hand power freight elevators, which are to be operated by water from the street mains. These elevators are in course of erection, and will be provided with automatic self closing hatch doors and all other late improvements. Mr. Bates reports orders from Anderson, S. C., and many other points in the South.

THE canning factory of H. F. Lamotte, Lamotte, Md., daily capacity 30,000 cans, has recently been fitted with the following modern machinery: Cooker, made by R. O. Conant, Portland, Me.; two cutters, Spregue Manufacturing Co., Farman, N. Y.; Climax capping machine, George H. Colket Co., Philadelphia, Pa.; silker, Merrill Soule, Syracuse, N. Y. The machinery was bought through the Colket Company, which is well known to the canning trade. The additional equipment also included a ten horse-power engine built by the A. B. Farquhar Co., Limited, York, Pa.; a Burt continuous wiper, Burt Manufacturing Co., Rochester, N. Y., and a Burr corn elevator, supplied by Burr & Dodge, Philadelphia, Pa.

BUSINESS with the E. W. Bliss Co., of Brooklyn, N. Y., continues brisk, and the following new improved trimming presses for trimming drop forgings and heavy hardware have been shipped during the past two weeks: One No. 73½ press with cut-off attachment, two No. 74½, one No. 75 press—these were shipped to one of the largest agricultural-implement manufacturers in the United States—and in addition to these, a 1500-pound drop hammer and a 600-pound drop hammer to two of the large heavy hardware manufacturers in the Eastern States, and a 400 pound drop hammer and a 3½-tonne drawing press with a complete set of dies to a large lamp manufacturing concern, also in the East. The works of the Bliss Company are running full time with 460 men and with a number of large orders which it is expected to ship within a couple of weeks. The outlook for further business seems much brighter than it has been for some time.

THE meritorious performances of the power-transmission devices manufactured at the Taper-Sleeve Pulley Works, Erie, Pa., are winning high encomiums for this concern. Testimonials are freely offered by users, who seem to take especial pride in pointing to the fact that their works are equipped with such devices. A recent letter to this concern from F. Dimel, Portland, Ind., reads as follows: "I have everything purchased of your company set up and all are doing the work that they were bought for, and it is first-class in every particular—shafting, heavy floor stands, pillow blocks, post hangers, all with graphite self-oiling take-up bearings, clutch pulleys, cut-off couplings, etc. I am highly pleased and know that I made no mistake, but used the best of judgment in buying of your people. There is no better outfit in this State for electric-light work than you have furnished me, and it will pay anyone desiring to investigate to come a long distance to see my plant."

THE Waterman Machine Tool Co., of Providence, R. I., George V. Rogers, president and treasurer, one of the oldest and best manufacturers of high-grade machine tools in the country, has purchased the shops and business in Oakland, Me., now known as the Oakland Machine Co. During the past few years the Waterman Machine Tool Co. has introduced many new tools, particularly in the line of boring and drilling machines. These tools are well and favorably known all over the country, and much of its product has gone abroad. The last year has been a busy one for this company, and the business year ending July 12, 1894, it is stated, shows the most profitable results in its history. The lack of room and suitable facilities for handling its large product induces it to locate in Maine, where the factory, which is in full running order, was quickly available without seriously holding back orders. The Waterman Company also recently purchased the H. C. Pease iron planer business, formerly of Worcester, Mass., and has improved these tools until it claims to have the best planers in the market for rapid, accurate work. This company will also manufacture the Dexter Machine Co.'s lathes and drills, orders for which can be promptly supplied. A larger part of the machinery of the Providence plant has already been forwarded to Oakland, Me., and a number of skilled mechanics will soon fol-

low. The new plant will be in full operation by August 1, and all correspondence should be addressed to Oakland, Me., after that date.

TRADE LITERATURE.

A HANDSOME new catalogue, No. 26, for 1894 has been issued by the Sullivan Machinery Co., of Chicago, Ill. This company manufactures the Sullivan diamond prospecting core drills, quarrying and mining tools and supplies of all kinds. Its new catalogue gives illustrations and complete descriptions of this product. The sales of the Sullivan diamond drill in all parts of the United States and in foreign countries proves the extent of its reputation. The success with which it operates is attested by the numerous commendatory letters which the company receives, and some of which are presented in the new catalogue. The Sullivan Machinery Co. also contracts for prospecting with the diamond drill. Catalogue sent on application.

A WONDERFULLY complete catalogue has been issued by the Smith-Courtney Co., of Richmond, Va. It contains over 500 pages and about 1800 illustrations. The typographical appearance is handsome, and the book, which is 10x12 inches, is substantially bound. The extensive range of supplies and machinery handled by this concern is covered in a comprehensive manner. Every modern device for the woodworker, ironworker, railroad contractor, machinist, miner, miller, etc., seems to be illustrated and described, and prices quoted. As a guide book the publication is a valuable companion, and without it the library of no large purchaser of machinery or supplies is complete. It is handily arranged, and the exceptional completeness, together with the vast line of goods covered, makes it a reference book worth having. In preparing and publishing such an expensive catalogue the Smith-Courtney Co. gives further evidence of the wide-awake, progressive spirit that has established it in the front rank of Southern houses. The management of this concern is in close touch with Southern trade and is well posted as to special conditions and needs. Handling the most improved machinery on a large scale, the company is able to properly look out for the interests of its patrons both as to excellence and reliability of goods and low prices.

A DISPATCH from the City of Mexico states that American capitalists will probably buy the crater of the volcano of Popocatepetl for the purpose of securing the sulphur in it. A committee has been appointed to investigate the sulphur and the best means of securing it. Should this strange operation be carried out it is proposed to build a short line of railway from a point on the Interoceanic road up the side of the volcano to facilitate the bringing down of the sulphur.

THE Sistersville (W. Va.) Board of Trade has made a proposition to Mr. J. B. Hastings for the location at that town of a plant to manufacture steel by Mr. Hastings' patent process. Local people, so Mr. J. H. McCoy, secretary of the Board of Trade, writes the MANUFACTURERS' RECORD, have agreed to take \$20,000 of stock in the steel company.

Waco, Texas.—J. Hansel Wood: "Our crops in Texas were never finer than now, and we anticipate splendid business in all lines."

Reduced Rates to Washington and Return via Pennsylvania Railroad.

Tickets, \$1.25 for the round trip, will be sold Saturday and Sunday, August 4 and 5, valid for return passage until Monday following, inclusive, and will be honored on all regular trains in either direction within limit.

Low-Rate Excursion to Washington and Return via Pennsylvania Railroad.

Excursion tickets at \$1.25 for the round trip will be sold Saturday and Sunday, August 4 and 5, good for return trip until Monday following, inclusive, and good on all trains in either direction.

Popular \$1.25 Three-Day Excursion via Pennsylvania Railroad, Washington and Return.

Saturday, August 4, Sunday, August 5, tickets will be sold valid to return on Monday following, inclusive, and are good on all regular trains going or returning within the limit.

Deer Park, on the Crest of the Alleghenies.

To those contemplating a trip to the mountains in search of health and pleasure, Deer Park, on the crest of the Allegheny mountains, 3000 feet above the sea level, offers such varied attractions as a delightful atmosphere during both day and night, pure water, smooth, winding roads through the mountains and valleys, and the most picturesque scenery in the Allegheny range. The hotel is equipped with all adjuncts conducive to the entertainment, pleasure and comfort of its guests. The surrounding grounds, as well as the hotel, are lighted with electricity. Six miles distant on the same mountain summit is Oakland, the twin resort of Deer Park, and equally well equipped for the entertainment and accommodations of its patrons. Both hotels are upon the main line of the Baltimore & Ohio Railroad, have the advantages of its splendid vestibuled limited express trains between the East and West. Season excursion tickets, good for return passage until October 31, will be placed on sale at greatly reduced rates at all principal ticket offices throughout the country. One-way tickets reading from St. Louis, Louisville, Cincinnati, Columbus, Chicago and any point on the Baltimore & Ohio system to Washington, Baltimore, Philadelphia or New York, or vice versa, are good to stop off at either Deer Park, Mountain Lake Park or Oakland, and the time limit will be extended by agents at either resort upon application to cover the period of the holder's visit. The season at these popular resorts commences June 23. For full information as to hotel rates, rooms, etc., address George D. DeShields, manager, Deer Park, or Oakland, Garrett county, Md. †

Two Delightful Tours to the North Under the Personally-Conducted Tourist System of the Pennsylvania Railroad Co.

To Watkins' Glen, Niagara Falls, Thousand Islands, Rapids of the St. Lawrence, Montreal, Au Sable Chasm, Lakes Champlain and George, Saratoga, Highlands of the Hudson.

First tour, July 17 to 30.

Second tour, August 21 to September 3, 1894.

Round trip, \$90.00; children between five and twelve years, \$75.75, covering railroad and boat fare for the entire round trip, parlor-car seats, meals en route, hotel entertainment, transfer charges, carriage hire, etc., in fact every item of necessary expense. The tourists need provide themselves with no funds beyond a few dollars for incidental or chance purchases they may be inclined to make; and in every case the best entertainment will be offered, as the leading hotels have been selected in each stopping place, and regular rates are paid, placing the tourist on an equal footing with other guests.

As the number of tickets to be sold for these tours will be limited, those contemplating the trip should secure tickets and Pullman, hotel and other accommodations as far in advance as possible. We will be pleased to send an itinerary to anyone contemplating the tour on application at this office, 200 East Baltimore street, passenger agent Baltimore district, Pennsylvania Railroad Co.

Low Rates to Denver, Col.

The Baltimore & Ohio Railroad Co. will sell round-trip excursion tickets to Denver, Col., from all points on its lines east of the Ohio river, August 8, 9 and 10, valid for return passage on trains leaving Denver August 19, 20 and September 13. The rate from Baltimore and Washington will be \$47.40, and correspondingly low rates from other points. Passengers taking the Baltimore & Ohio have a choice of routes, going via Pittsburgh, Akron and Chicago, via Grafton, Bellaire and Chicago, or via Parkersburg, Cincinnati and St. Louis; double daily service of express trains, with Pullman sleeping and dining cars on all routes. †

THE celebrated "Hoosac Tunnel Route" of the Fitchburg Railroad from Troy, N. Y., to Boston, Mass., passes through the most magnificent scenery to be found in all New England, so old tourists say. For miles the cars run along the bluff above the Deerfield river, every foot of the journey being full of enjoyment to those to whom beautiful mountain scenery is interesting. For Southern travelers to see this part of New England requires a detour from the beaten paths, but it is worth the extra outlay of time required. The service of the Fitchburg Railroad is first-class in every respect—equal to the best roads in the country—and for Western people it is the shortest route from Chicago to Boston. †

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COMMISSIONERS' SALE

of the Valuable Real and Personal Property of the Columbia Liberty Iron Company.

Pursuant to a decree of the U. S. Circuit Court for the Western District of Virginia, rendered on the 21st day of July, 1893, the undersigned special commissioners appointed by said decree will sell at public auction on Saturday, the 1st day of September, at the front door of the Courthouse in Harrisonburg, Virginia, all the property, real and personal, of the Columbia Liberty Iron Company, including all the rights, franchises and privileges of said Company as a whole or separately, and in such parcels as the commissioners may deem judicious or so much of said property as may be necessary to satisfy said decree. The property consists of the new and complete Furnace known as the Liberty Furnace, the old Furnace at Columbia, the valuable lands of said Company with its almost inexhaustible ore banks and with its residences, stone houses and other valuable improvements. The attention of purchasers is invited and examination is requested. A more particular description of the property will be furnished on application to the undersigned commissioners at Harrisonburg, Virginia.

TERMS: one-fourth cash, to be paid upon confirmation of sale, to be secured on day of sale by deposits of such cash or other collateral as will be satisfactory to the commissioners, taking bonds with approved security at one, two, and three years with interest from day of sale.

JOHN E. ROLLER,
ED. S. COVRAD,
Special Commissioners.

August 1st, 1894.

[August 3, 1894.]

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